

In This Issue—*Three Letters and \$300*

MOTOR AGE

Vol. XLVIII
No. 14

PUBLISHED WEEKLY AT 5 SOUTH WABASH AVENUE
CHICAGO, OCTOBER 1, 1925

Thirty-five Cents a Copy
Three Dollars a Year

**Imagine a Line Eight
Sedan of characteristic
Jordan quality at \$1845.**

**Then picture the fa-
mous Playboy at \$1695.**

Isn't that value?

Edward S. Jordan

President
Jordan Motor Car Company, Inc.
Cleveland



Women as Well as Men Now Find Real Motoring Delight

THE Hupmobile Eight gets a grip—a delightful grip—on its owners from the start.

It is more than coincidence that much of the highest praise comes from those who have driven cars costing a great deal more to buy—and the Hupmobile invariably gains by the comparison.

E. B. S. _____ has always driven cars costlier and heavier than his Hupmobile Eight Sedan. He made the statement to a number of people in a Hupmobile salesroom that if the _____, the _____, the _____ or the _____ (all much higher-priced cars) should offer an even trade with him he would not accept.

"I have never ridden with such comfort," he says, "nor driven with the ease I am driving now."

One of the perfectly legitimate things a good salesman tries to do is to get the prospective customer into a buying mood.

M. E. H. _____ is a real estate operator at Sand Beach, forty miles east of Toledo. In the first six months he owned a Hupmobile Eight Sedan, the car covered 10,000 miles.

H. _____ says that he thinks a great deal of his present sales success is due to the way his Eight performs, and the fine frame of mind which its smooth running puts his customers in during the trip to the beach.

Women invariably take to the Eight because it offers them so many distinct advantages which they have always wanted and never before found. Mrs. Samuel R. _____ much prefers the

Hupmobile Eight Sedan to any other car in the family fleet, which includes at least one other car of higher price.

Traffic and parking—a woman's motoring bugbears. They're gone for the woman fortunate enough to have this Eight at her disposal.

"In the past I had tried cars with balloon tires," says Mrs. W. _____ "but I just couldn't manage them in traffic and in parking. But now, with my Hupmobile Eight! To my great delight, I handle it and park it even more easily than smaller cars we have had."

An hour's drive isn't a day's drive in any car; and after you've driven for a day, you know whether a car is easy and you can put a real estimate on its power and performance.

Miss Lillian M. E. _____ likes the Eight, she says, because it is so easy to handle and so powerful in getting out of traffic. She makes a big point, not only for women but for men as well, when she says:—

"I've driven my Hupmobile Eight Coupe farther in a day than I ever drove any automobile, and when I finished I was not conscious of any strain or fatigue such as I would have had with any other car."

There is a revelation waiting for you, too, the first time you drive the Hupmobile Eight.

The names and addresses of the owners quoted above will be sent to anyone upon request to the Hupp Motor Car Corporation, Detroit, Michigan

Sedan, Now \$2195
Roadster, Now \$1795

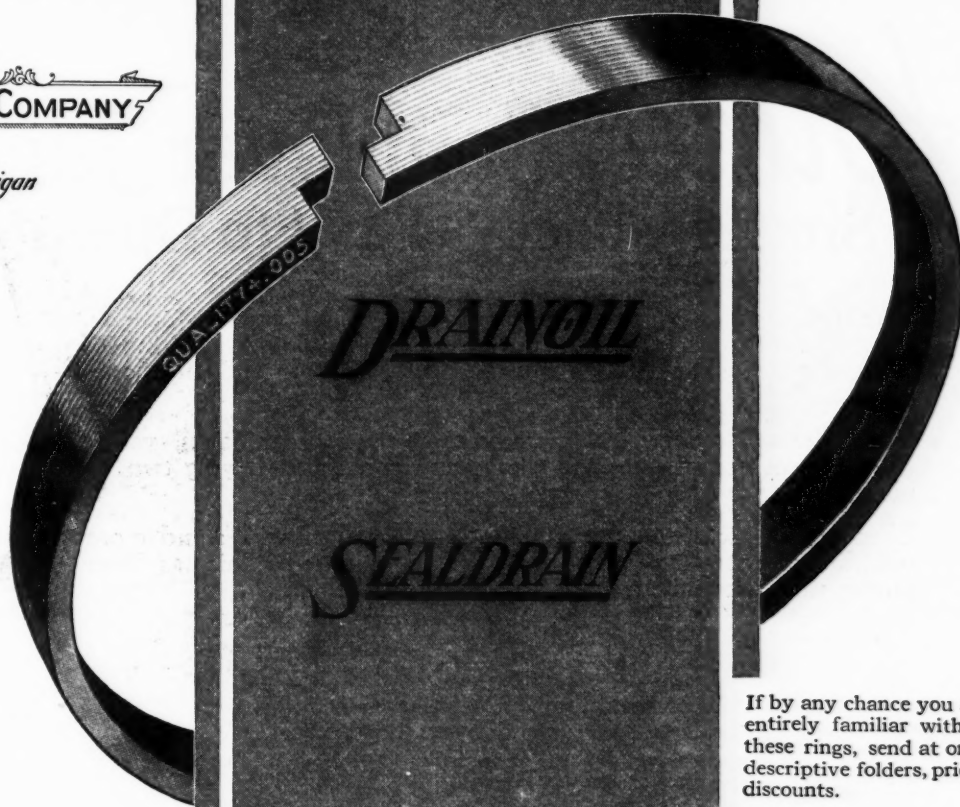
Coupe, Two or Four-Passenger, Now \$2095
Dickey-Seat Roadster, Now \$1895

Touring Car, Now \$1795
F. O. B. Detroit, tax to be added

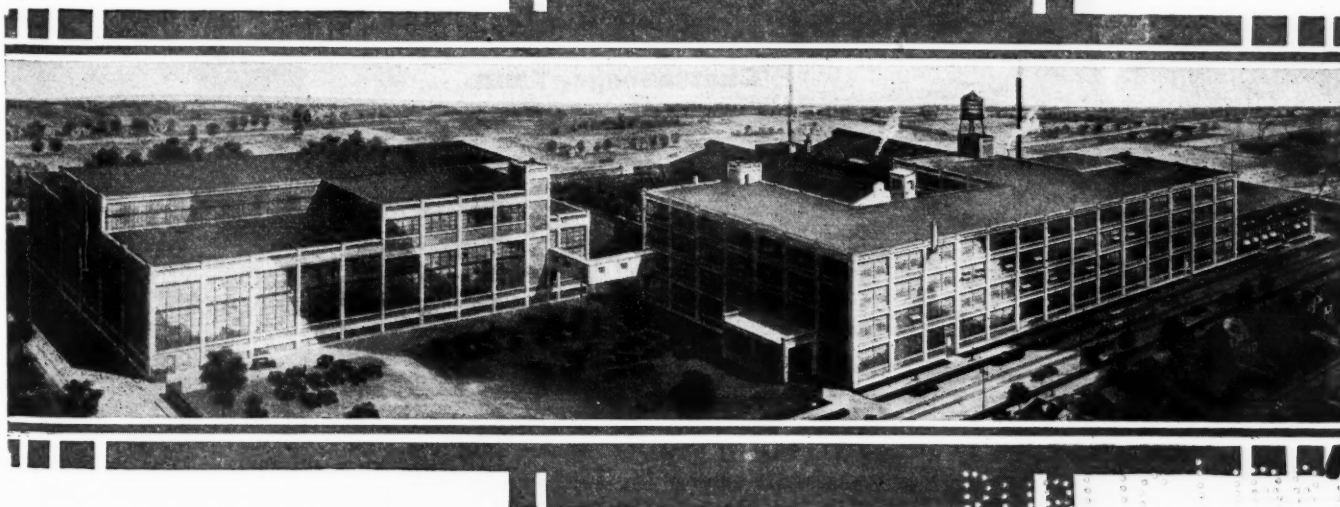
HUPMOBILE EIGHT

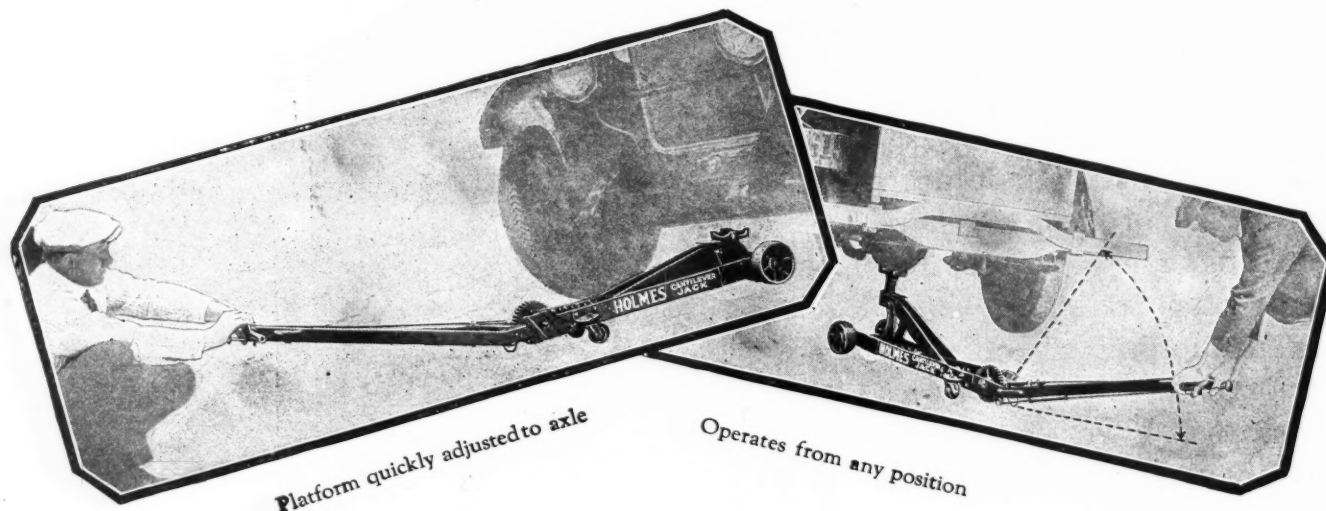
Everything associated with each of these four piston rings favors good sound merchandising—the strengthening of trade relations, a steady repeat business, lower sales resistance and greater profits.

The Piston
RING COMPANY
Muskegon, Michigan



If by any chance you are not entirely familiar with all of these rings, send at once for descriptive folders, prices and discounts.





Holmes Cantilever Jack

Simple-Speedy-Easy to Operate

The Holmes Cantilever Jack is simple, speedy and easy to operate. There is no tripping of pawls, unlocking of handle or resetting of control. It handles the jobs as they come--the low and high ones alike.

The Holmes Cantilever Jack costs no more than other Jacks, yet it does the work of all types and eliminates the cost of buying two or more.

Then too, by actual test the Holmes Cantilever Jack will stand more punishment than any other Jack on the market. This has been proven time after time by shops that have tried them all.

Price \$36.00

Let your Jobber tell you all about the Holmes Cantilever Jack and what it means to rapid, efficient garage service. See it on his floor or write this company for complete catalog.

ERNEST HOLMES COMPANY

Chattanooga, Tenn.



Although the handle normally stands upright it folds compactly or can be locked for pivoting Jack on casters.

MOTOR AGE

Reg. U. S. Pat. Office

Vol. XLVIII

No. 14

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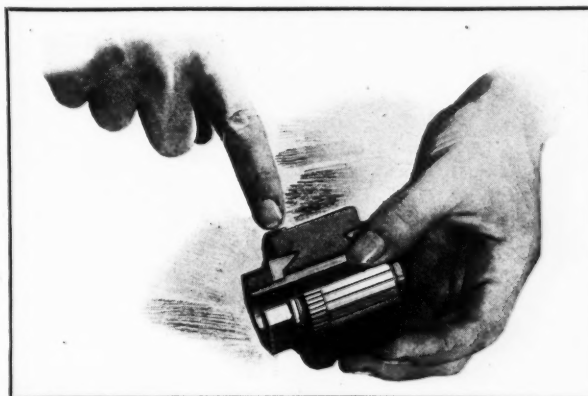
Subscriptions accepted only from the Automotive Trade
Entered as Second Class Matter, Sept. 19, 1899, at the Post Office at Chicago, Ill., under Act of March 6, 1879

Thor

Construction Makes Portable Electric Drills Pay Their Way

(This is another of a series of advertisements showing Thor superior construction. Ask for booklet "Inside Facts" and get the whole story.)

Fourth-Commutator Design Is Correct



None but a motor so perfectly balanced could make the performance records that Thor drills have set. Balance is the keynote of Thor design. First the commutator and fan, and then the complete armature, are balanced separately, so there is no distortion or vibration.

Furthermore, in the Thor motor the commutator is not attached direct to the steel armature shaft—because steel does not expand the same under heat as copper. The Thor commutator is a separate unit, built up on a brass sleeve that expands and contracts evenly with the copper segments, thus making sure that these segments will not work loose and rise. That's why Thor commutators are free from loose segments, which occur when the commutator is built on the steel armature shaft.

INDEPENDENT PNEUMATIC TOOL COMPANY

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PNEUMATIC DRILLS AND REAMERS. WOOD BORING MACHINES. CLOSE CORNER DRILLS. HOISTS. GRINDERS. RIVETING HAMMERS. CHIPPING. CALKING. FLUE BEATING AND SCALING. HAMMERS. SAND RAMMERS. RIVET BUSTERS. CORE BUSTERS. CLAY DIGGERS. AIR MOISTURE SEPARATORS. PNEUMATIC TOOL ACCESSORIES. HOSE AND COUPLINGS. ELECTRIC DRILLS. REAMERS. TAPPERS. GRINDERS AND SCREW DRIVERS.

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QUICK, Easy, Accurate.... Surface Smooth as Glass.... Save Time, Money, Labor.... No Filing.... No Fussing.... Just Peel 'em.... A Shim for Every Car.... Your Jobber Sells 'em.

Address "Sales Dept."
LAMINATED SHIM COMPANY, INC.
14th St. and Governor Pl., Long Island City, N. Y.
St. Louis: Mazura Mfg. Co.

LAMINUM



*This symbol means that Studebaker prices do not
include the profits of outside body-makers*

ONE-PROFIT manufacture won instant public acceptance.

Backed by "No Yearly Models" and "The Used Car Pledge," it has brought increased value to the Studebaker franchise and even greater success to Studebaker dealers.

THE STUDEBAKER CORPORATION
OF AMERICA
SOUTH BEND, INDIANA

T H I S I S A S T U D E B A K E R Y E A R



DO you go to bed at night with a lot of worries made up of "factory quotas" and "used cars" and "overhead" and "finance charges"? And look forward to another day of battle against "conditions"? The STUTZ plan for dealers substitutes practical, profitable work for a lot of "worries"—no man can work at his best when beset with the serious problems of disposing of and financing a number of cars he never judged he could sell. It is laid with a knowledge of YOUR OWN conditions to help you build profitably and conservatively for tomorrow. The proof of its practical value to you awaits YOUR first letter to me.

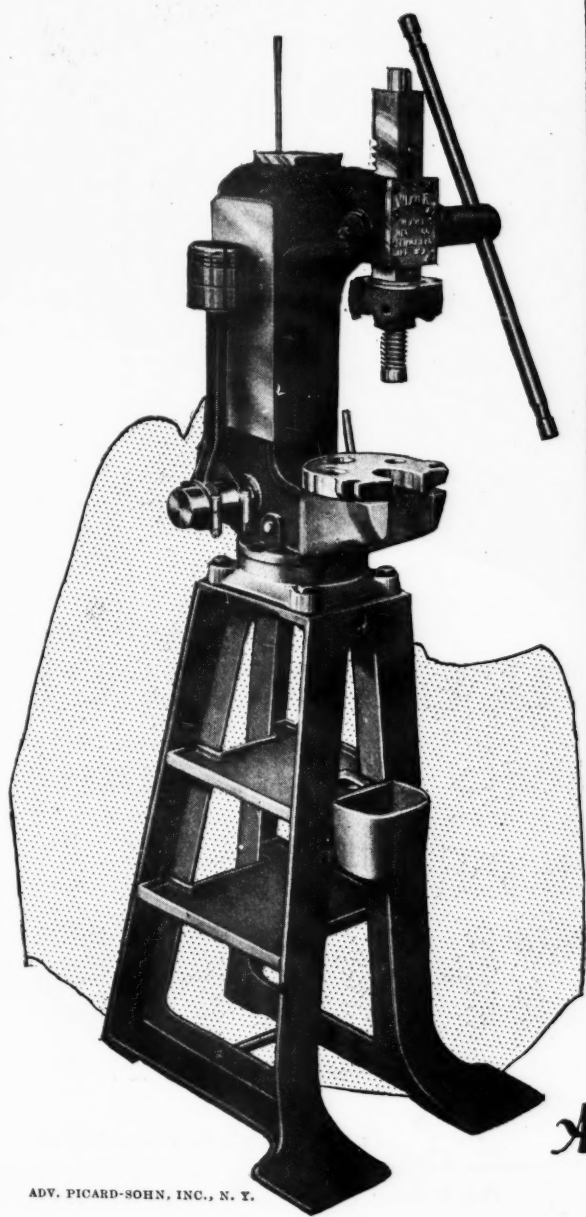
FREDRICK E. MOSKOVICS
President

STUTZ MOTOR CAR COMPANY
of AMERICA, INC.
INDIANAPOLIS, INDIANA

*Is your repair work
growing by the minute?*

WEAVER

MOTOR SERVICE PRESS



If you want service work to keep coming to the shop, you need a good press to handle it. Here's one—not expensive, either—handles light pressure and straightening work up to five tons—and performs a dozen other duties in motor reconditioning.

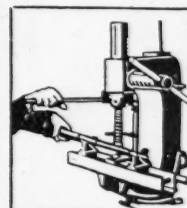
It aligns pistons, straightens shafts, performs brake relining service and fits connecting rod assemblies complete, including straightening and broaching. A rapid reliner of all brake bands, too—or Ford Transmissions.

The Weaver Motor Service Press supplies all the tools mentioned, at a fraction of what they'd cost if bought separately. Just the equipment for a growing shop.

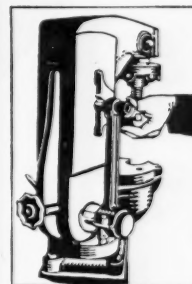
Weaver Manufacturing Co.
Springfield, Illinois, U. S. A.
Weaver Canadian Company, Ltd.
Chatham, Ontario



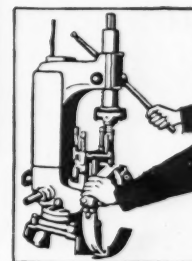
Any further information you'd like?
Just drop a line. You're Welcome!



STRAIGHTENING
HEAVY WORK



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NECTING RODS



RELINING
BRAKES

*Ask your Jobber's Salesman
He's our field representative*



Gripping hands on the wheel
can never replace gripping wheels on the road

For a real grip on Chain Sales, Carry

WEED CHAINS

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AMERICAN CHAIN COMPANY, Inc., . . . **Bridgeport, Connecticut**

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District Sales Offices: Boston Chicago New York Philadelphia Pittsburgh San Francisco

MOTOR AGE

Vol. XLVIII

Chicago, October 1, 1925

No. 14

Summary and Index of Important Events in This Week's Automotive News

*Detailed Stories from MOTOR AGE Staff Writers and Special
Correspondents Appear in News Section Beginning on Page 32*

REPORTS from practically all sections of country indicate strong tone to new car sales. Page 32.

National Association of Finance Companies plans survey to determine what constitutes sound credit terms in payment for automobiles. Page 35.

Automotive interests getting organized for war tax battle. Page 33.

Leading rubber companies announce they will abandon "spring dating plan" of selling tires to dealers. Page 39.

Foreclosure suit filed by trustees for mortgage holders against Lexington Motor Co., of Connersville. Page 33.

Paige-Detroit directors decide to call \$500,000 block of notes six months before maturity. Financing plan will cut funded debt a million dollars. Page 32.

Four wheel brakes will be fitted to Willys-Knight 4-cylinder cars. Page 32.

Three new features added to all Kissel models. month in 1924. Page 34.

September business in Chicago shows gain over month in 1924. Page 34.

Hold drawings for A. E. A. show in Chicago November 9. Page 14.

Battery manufacturers hold meeting at which several new members are admitted and steps taken to increase general efficiency of organization. Page 35.

Moscow committee awards American passenger cars seven out of total of 15 major prizes in 3000 mile trials. American trucks take four of five major prizes. Page 43.

Trouble prevention will be keynote of joint session by S. A. E. and N. A. C. C. in Chicago October 9-10. Page 33.

Dining car buses are one of California's latest innovations. Page 39.

Financial details of Yellow Cab-General Motors merger are completed at board meeting and new corporation now ready to build trucks and coaches. Page 39.

Hudson-Essex passes record output mark of 200,000 automobiles. Page 42.

Ford may enter textile industry in North Carolina, reports declaring he will buy mills now making fabrics for tires. Page 42.

August registrations in Illinois show 32 per cent decrease. Page 42.

All automotive lines show gains in Texas territory during September. Page 36.

Automobile plants in Toledo continue to increase their production, while employment shows gain of 1,014 in week. Page 36.

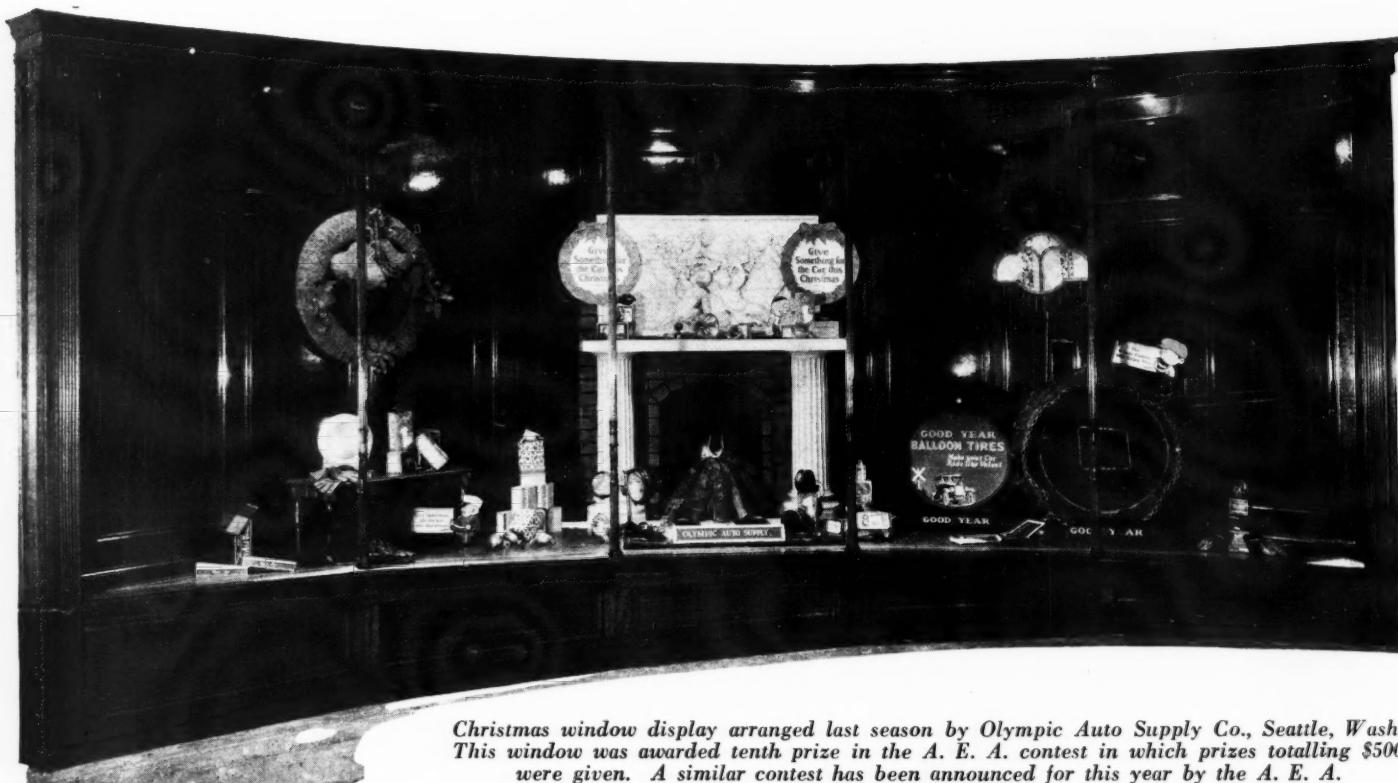
Salt Lake City territory business is in healthy condition during September. Deliveries are one problem. Page 37.

Survey shows that it costs 5.85 cents per mile per passenger to drive an automobile in national capital, figuring average capacity of 1.9 passengers to a car. Page 37.

September business this year in northern and central California is 22 per cent ahead of the same month in 1924. Page 38.

Des Moines business is marked by conservative trading in September. Page 38.

In Next Week's Issue—A Practical Trade Association Program



Christmas window display arranged last season by Olympic Auto Supply Co., Seattle, Wash. This window was awarded tenth prize in the A. E. A. contest in which prizes totalling \$500 were given. A similar contest has been announced for this year by the A. E. A.

SOMETHING ON THE CHRISTMAS TREE

Santa Claus Will Hang Up Profits for Those Who Aggressively Push Holiday Merchandising Plans

THE Christmas merchandising campaign of the Automotive Equipment Association will be conducted more vigorously this year than ever before. The merchandising committee has laid its plans early so that there will be ample time for manufacturers, jobbers and retail dealers to arrange to get the full advantage of the campaign. Director Arthur R. Mogge has already prepared the promotional literature and shortly it will be possible for dealers everywhere to make use of the strikingly colored window cards, streamers, wreaths and other decorations provided by the A. E. A. for the purpose of creating a holiday atmosphere.

Meanwhile the opening of the third annual Christmas window display contest for dealers has been announced by the A. E. A. Details of this contest, in which prizes amounting to \$500 will be awarded, were published in last week's issue of MOTOR AGE. An

additional prize of \$50, will be awarded this year to the one of the window prize winners who submits the best letter telling how he decorated his window.

The promotional work done of the merchandising department of the A. E. A. in the two preceding years to popularize the idea of using automotive products as Christmas gifts provides a background of favorable opinion upon which the committee and Mr. Mogge believe it will be possible this year to build up a much greater volume of Christmas business than ever before.

It is not too early for the retail dealer to begin his plans for the holiday season. Actually it is 12 weeks until Christmas. But in recent years the shop early idea has grown so much that one can be sure a large number of people will be buying Christmas gifts late in November and early in December. At the latest the dealer should be pre-

Automotive Gift Suggestions

From a booklet prepared by the Merchandising Department of the Automotive Equipment Association

Articles that may be purchased for \$2.50 or less

Ash Receiver
Bar Cap
Brushes
Bulb Kit
Can of Oil
Chains
Cigar Lighter
Cleaning Material
Clock
Flashlight
Flower Vase
Heater
Jack
Lamp Kit
Lock
Luggage Carrier
Mirror
Moto Meter Lock
Parking Lamp
Pliers

Pump
Radiator Cap
Seat Cushions
Spark Plugs
Spot Light
Stop Plates
Stop Signal
Timer for Ford
Tire Chains
Tire Cover
Tire Gauge
Tire Lock
Tool Kit
Tools
Tube
Tube Patches
Vacuum Bottle
Windshield Wiper
Wrenches
Wrench Sets

Articles that may be purchased from \$2.50 to \$5.00

Ash Receiver
Bar Cap
Brushes
Bulb Kit
Chains
Cigar Lighter
Clock
Cushions
Flashlight
Flower Vase
Heater
Horn
Jack
Lock
Luggage Carrier
Lunch Kit
Mirror
Moto Meter
Parking Lamp
Primer

Pump
Radiator Cap
Radiator Cover
Seat Covers
Seat Cushions
Spare Tire Carrier
Spark Plug Kit
Spot Light
Stop Plates
Stop Signal
Tire Chains
Tire Cover
Tire Lock
Tool Kit
Tow Line
Tubes
Vacuum Bottle
Visor
Windshield Wiper
Wrench Sets

Articles that may be purchased from \$5 to \$10

Automatic Windshield Wiper
Bar Cap
Chains
Cigar Lighter
Clock
Flower Vase
Heater
Horn
Jack
Lock Steering Wheel
Luggage Carrier
Lunch Kit
Mirror
Moto Meter
Primer
Pump
Radiator Cap
Radiator Cover

Radiator Shutter
Robe
Seat Covers
Spark Plug Kit
Steering Wheel
Steer Worms
Stop Plates
Stop Light
Stop Signal
Tire Chains
Tool Box
Tool Kit
Tow Line
Tubes
Vacuum Bottle
Visor
Windshield Wiper
Wrench Set

Articles that may be purchased for \$10.00 and up

Bumpers
Chains
Cigar Lighter
Clock
Fire Extinguisher
Flower Vase
Heater
Horn
Jack
Lock Steering Wheel
Motor Meter
Pump
Radiator Cover
Radiator Shutter
Robe

Seat Covers
Shock Absorbers
Speedometer
Spot Light
Steering Wheel
Stop Signal
Tire Chains
Tire Cover
Tires
Tool Box
Tool Kit
Trunk
Visor
Windshield Wings



Give Something for the Car this Christmas



pared to offer the public a full selection of Christmas merchandise the first week in December.

The time intervening before the dealer should be fully stocked up with Christmas merchandise, well displayed and decorated, is therefore only nine weeks. It will take some time for the dealer to study his market, make an analysis of his probable requirements and place his orders. Orders should be placed early enough that a complete assortment of goods will be on hand by Dec. 1.

Car dealers have to think about arrangements for making deliveries of new cars on or about Christmas day. With the lower prices in effect this year it is likely that new automobiles will be more in demand as Christmas gifts than ever before and a corresponding problem of delivery will be presented to the dealer. This means the salesmen should get their Christmas orders signed up as early as possible so that dealers can get the cars from distributors and factories in time for Christmas delivery.

To aid in the Christmas campaign this year the A. E. A. has prepared an elaborate assortment of window cards and decorations which will be distributed to dealers through the A. E. A. jobbers. Stock assortments include two window streamers with holly sprays in green and red at either end and the words, "Give Something for the Car This Christmas" in green letters. Also included are two large green and red holly wreaths, some window cards with the words, "We wrap your Christmas parcels in holly paper," some large and small Santa Claus price cards which the dealer can use to mark the prices of individual items, and

two large counter cards with appropriate Christmas messages on them.

Another feature of the Christmas assortment is a handsome little booklet filled with suggested automotive Christmas gifts at various prices. This little booklet, which will easily fit into a vest pocket or a woman's purse, has covers strikingly printed in red and green. In addition to a suggested list of automotive gifts it contains memorandum space for listing the names of persons and the gift selected for each.

It is the intention of the A. E. A. to supply these booklets to dealers at nominal cost in any desired quantity for general distribution. The dealer's name and address can be imprinted on the back cover.

In surveying his market the dealer should take into account the number of each of the various makes of cars in his territory, the number of closed and open cars, the age of cars and other factors which will influence owners in the desire or use for various types of accessories and supplies. The buying habits of the people of the community also should be taken into consideration.

The automotive merchant may enjoy a profitable Christmas season if he will make his plans early enough and carry through energetically. He will have the assistance of the expert merchandising representatives of not only the Automotive Equipment Association, but also of many manufacturers and jobbers. The extent to which dealers avail themselves of these helps will largely determine their degree of success.



Some of the promotional printed matter provided by the A. E. A. for this year's Christmas merchandising campaign

\$300.00

AND WHAT HAPPENED TO IT

Told in Three Letters

This is a story with a moral that automotive dealers can readily pick out for themselves. The actual correspondence is printed here in the sequence in which it was written. The first letter was received in the MOTOR AGE editorial office on September 9, 1925. It follows:

So-Called Buying Corporation Offers Low Prices

Motor Age,
Chicago, Ill.
Gentlemen:

Brockport, N. Y., Sept. 7, 1925.

I have been approached by a representative of the _____ Corporation of New York City who has a proposition that seems to be good. They want a deposit of \$300 that stays in their hands as long as a dealer buys from them and in return they enable him to buy his accessories at big savings.

Knowing that you are always ready to be of assistance to the trade I am writing you asking for your advice for a dealer as to joining this corporation.

If you can, will you send me your report by direct mail instead of waiting for it to be used in your magazine, so that I can decide the question at once.

Thanking you for your interest in this matter.

Yours truly,
E. A. COAPMAN,
Brockport Service Garage.

This letter was answered at length on Sept. 10 by the Editor of MOTOR AGE, as follows:

Editor Advises Dealer to Keep \$300 at Home

Mr. E. A. Coapman,
Brockport, N. Y.
Dear Sir:

Chicago, Sept. 10, 1925.

I am especially glad to give you the best advice I am capable of in this case.

You say that in order to do business with this buying corporation and get the benefit of low prices on accessories you must deposit with the corporation \$300 in cash and leave it there as long as you buy from this concern. I wonder why that requirement? It sounds to me like a shoe string concern trying to raise capital to do business on. If you and a hundred or so other retailers in your part of New York State would advance \$300 apiece to your leading automotive jobber you would furnish him with a wonderful amount of ready cash for working capital upon which he would not have to pay a cent of interest and maybe he, too, would be able to give special low prices.

You have not given me very many details upon which to base an answer. You do not say how much lower you could buy from this corporation than from any reputable jobber. You do not say how complete a line of accessories and equipment you will be able to buy from the corporation. You do not say what assurance, if any, you have that the corporation will return (or be able to return) your \$300 in case you desire to pull out of the arrangement.

These are among the points that you should consider before making your decision.

You do not state what volume of business you do or what proportion the \$300 deposit bears to the monthly purchase you probably would make from the corporation. You do not say whether or not you would be obliged to purchase goods in any certain amount or quantity to get the advantage of the low prices. I wonder if this corporation carries a complete stock of automotive merchandise from which it is prepared to ship on short notice articles for which you will have sudden demand.

If you sign up with this corporation will you have to confine your buying to it or will you be free to purchase elsewhere at your option? Are the "low prices" bona fide and applicable universally to the whole realm of standard automotive merchandise, or only to special items or unknown brands?

I assume that you are an honest automotive merchant who wants to build a permanent and profitable business on the basis of fair prices, square dealing and courteous service to the motoring public. I believe it is your desire to sell merchandise that you can stand behind with the reputation of your house. Can you do it with the merchandise and service that you would get from this corporation?

It seems to me that if I were an automotive merchant in a town like yours I would establish cordial business relations with a high grade automotive wholesaler close enough to give me prompt and reliable service, and would confine most of my buying to that source. I would make my store a valued customer of a reputable house and then I believe that I would possess every business advantage that I would need. I would look not so much for bargain prices as for the opportunity to get quick turnover on a well selected stock of merchandise at a fair profit. I wouldn't start out to be a price-cutter nor a patron of price-cutters. I would make my store trusted by the public and I would deal only with those wholesalers who command my respect and confidence.

And I would keep that \$300 on deposit in my local bank as a reserve fund to help me always to take advantage of cash discounts and maintain my position as a preferred customer of a preferred wholesaler.

If I had been in possession of more details of the proposition confronting you I might have answered somewhat differently, but I doubt if my conclusion would have varied from that given here. I will appreciate it if you will enlighten me further on this proposition and tell me what you have decided to do and why.

Yours very truly,
MOTOR AGE,
SAM SHELTON, Editor.

Meanwhile the high-pressure salesman of the so-called buying corporation had been busy and had gotten the dealer's check. But the dealer was quick to realize the mistake he had made and on Sept. 12 wrote the editor as follows:

But Experience Is Still the Best Teacher

Brockport, N. Y., Sept. 12, 1925.

Motor Age,
Chicago, Ill.

Attention Sam Shelton.

Gentlemen:

I want to thank you for your interest in my behalf and for the prompt answer to my letter of last week, regarding the _____ Corporation.

The proposition of theirs is that by a dealer tying up the \$300 with them he is then entitled to purchase anything that they have in the line of accessories that they handle, which is quite complete. Their prices are about 25 per cent lower than we are now able to buy through the regular jobbers. I fell for the line due to the fact that we are now getting a lot of competition from "gyp" dealers in Rochester which is only 18 miles from here.

Their salesman wrote on the back of their contract that I was to have back my \$300 any time that I was not satisfied with their service. He also told me that they would be glad to have me get a report on them, and that my check would not be back here before I got this report. He immediately tried to get my check certified, but the bank called me and I told them to stop payment on it until the report came back. This made their man very mad, but he said all right. The report came back that they had \$2800 in cars, \$1700 in stock and that their good will was valued at \$20,000. This decided me that the check would say "stopped."

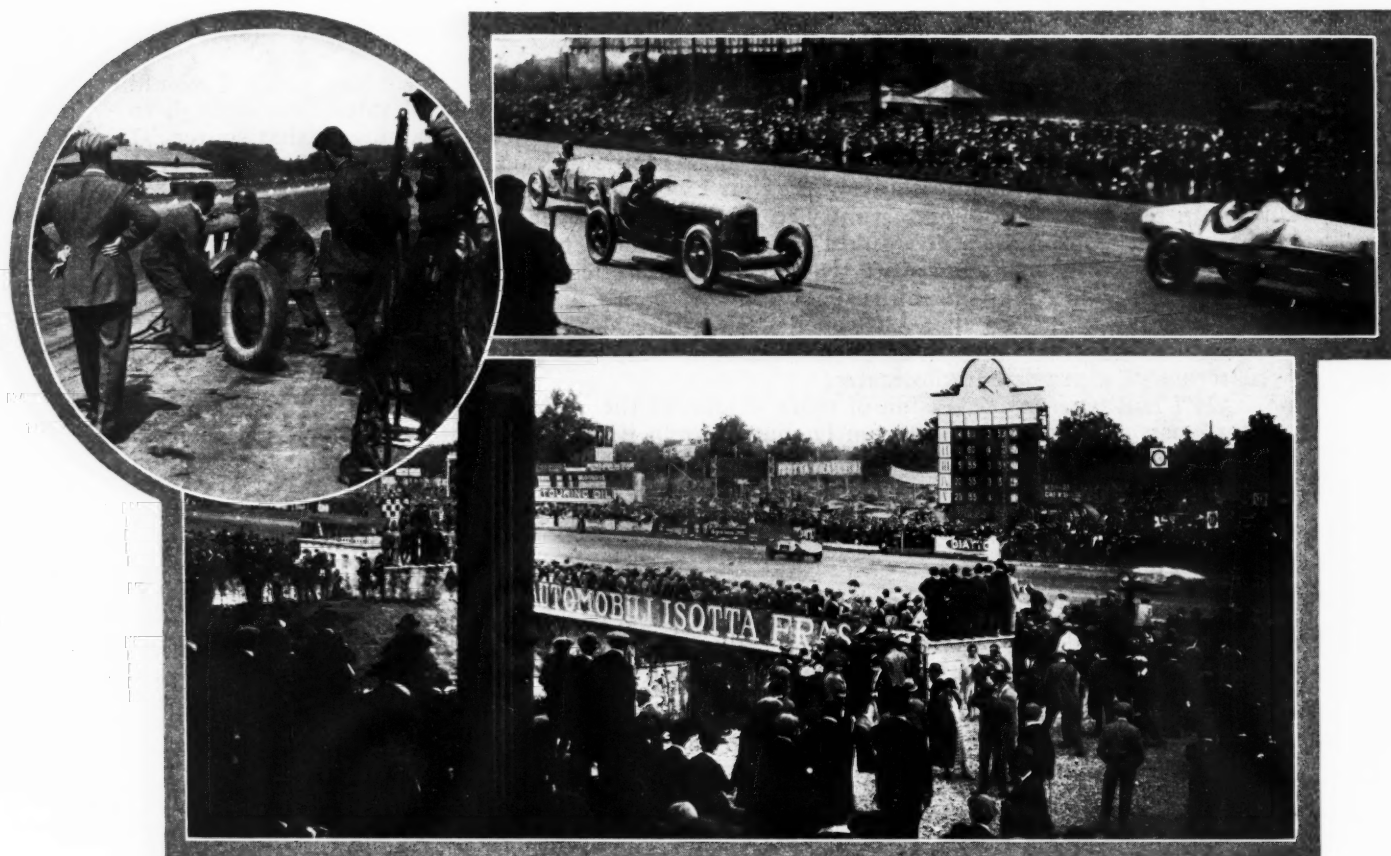
Accordingly the check was protested, and now I am wondering if there is any way that they can collect it. Their man signed the paragraph in which it states that I can withdraw at any time. I sent this on to the firm to see if they would also endorse this item so that it would be more binding, but they have not as yet seen fit to send it back as I requested.

I trust that my experience will be a lesson to other subscribers of your valuable paper.

Very truly yours,
E. A. COAPMAN.

As we have said before, profit begins with buying. It is advisable for the retail dealer to strive to obtain the best prices consistent with good merchandise, satisfactory service and honest practices, but whenever unusually low prices or extremely high profits are offered it is well to be cautious.

Italian Grand Prix Stresses Handicaps of American Driver Racing Abroad



In circle: Brilli Peri, driving Alfa Romeo to victory, stops to change tires; top: Tommy Milton in Duesenberg (on far side of track) who finished fourth despite loss of 26 minutes for repair of broken oil line; bottom: View showing crowds and the finish of the race

IF American cars failed to capture the Italian Grand Prix, held at Monza, Sept. 6, and did not succeed in bringing the world's Automobile Championship to their side of the Atlantic, they proved their right to be matched against the best in the Old World. Racing abroad presents difficulties which were enhanced in this case by the fact that the American Automobile Association does not possess an international voice.

European racing rules specify a 122-inch engine, a two-seater body 31 inches wide, with one man aboard. America races with single seater bodies. The two Duesenberg cars arrived in Milan with the assurance that they would be allowed to race with two plates, 6.6 ins. square added to their head resistance equal to that of the wider European cars. The organizers of the race, however, appear to have overstepped their powers in making this concession, and the jury insisted on 31 inch bodies being built. The rule that the two seats should be side by side was not enforced, the American drivers sat in the middle while the European drivers were on the right.

The difference between American and European rules caused friction and created a situation which needed very diplomatic handling.

The story of the race is easily told. Kreis took the lead on the second lap, but driving too fast he spun round on one of the curves, was unable to withdraw the clutch and broke the second gear in the transmission. Milton was delayed a few seconds on the starting line and had to go right through the group of slower 91-inch cars running

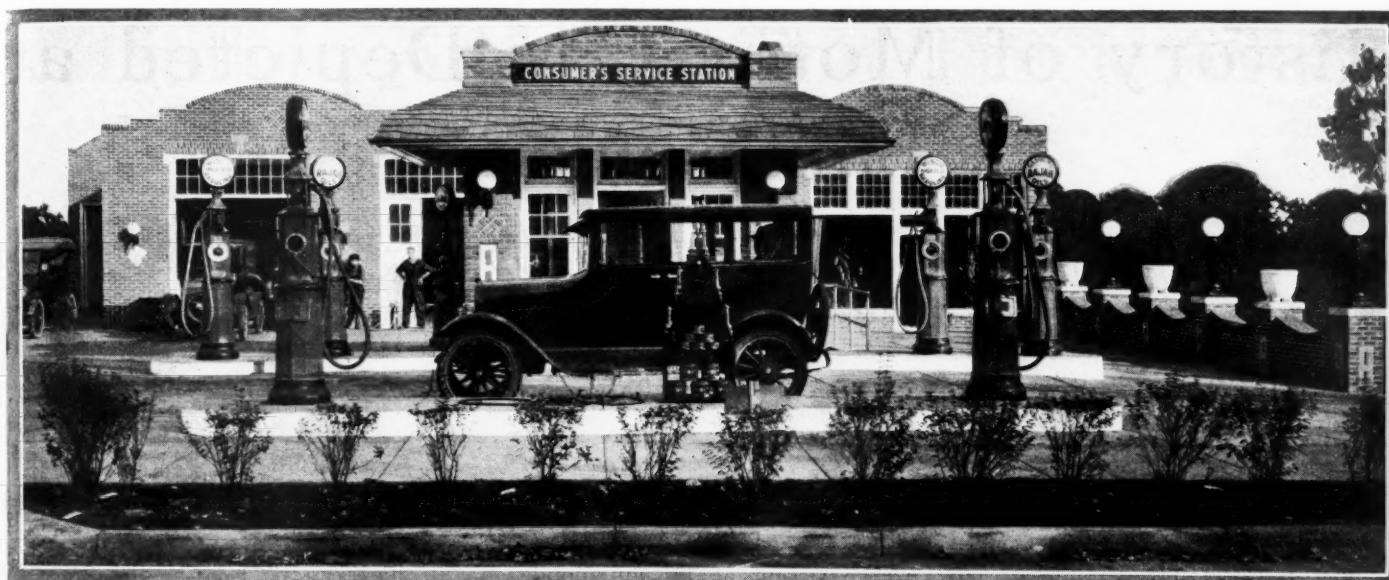
with the 122-inch models in this race. For twelve laps, (72 miles) he trailed the three Alfa Romeos, then on the thirteenth lap caught up and passed De Paolo. Near thirty laps he was on the tails of the two other Alfa Romeos, and when the Italian cars stopped for gas and tires he went into the lead. At forty laps, half distance, Milton made his first stop for tires and gas, but on the following lap he had to stop again owing to a broken oil line to the right hand camshaft. The repair cost him 26 minutes and removed all chance of winning the race. In addition to this Milton had broken his right rear shock absorber very early in the race, and had broken the countershaft in his transmission during the fifth lap.

The twenty-six minutes occupied in repairing the broken oil line, dropped Milton from the leading position he had occupied for seven laps down to eighth position, behind all the Alfa Romeos and also in the rear of four of the 91-inch Bugattis. Realizing that he had no chance of winning, Milton took things easy from this point on and although he got ahead of the Bugattis again, with the exception of the one driven by Constantini, he did not attempt to beat the Alfa Romeos.

De Paolo, in an Alfa Romeo, never got the lead, his best position in the race being second.

There was not much competition among the 91-inch cars, excepting that provided among themselves by the four drivers of the Bugatti team. Two Chiribiris went out

(Continued on page 43)



Outside "Slick-up" on this order is bound to attract business

Clean Surroundings Attract Business

Slick Up for Winter Business Is Not Complete Until Outside Appearance of Dealer's Establishment Has Been Made Neat and Inviting

By CLARENCE PHILLIPS

SEVERAL years ago an interesting story appeared in one of the popular magazines under the title—"All Front and No Back." It had to do with the false manner of living pursued by a young married couple who gave all thought and money to "front."

Putting up an elaborate front, to their way of thinking, was more important than having something worth while behind the "front." All sane business men will agree they were following an illusion, that their logic was wrong and that the "front" they affected, without a proper "back," was a very poor investment.

The "All Front and No Back" theory is just as wrong in the case of the individual's or couple's living habits as it is when applied to the management of an automotive business establishment. And all sane business men will agree on this point.

At the same time the theory which prescribes "All Back and No Front" is wrong.

While it is admitted that the "back" must be maintained in the highest degree of business efficiency and "slicked up" as much as possible—while we know that the salesroom, shop and other units composing the "back" must be given religious attention in this connection—it is highly important not to forget or neglect the "front." It must be generously remembered.

Consider Appearance Details

So in the process of slicking up for winter business the show windows, front exterior of the building, sidewalk and everything outside bearing on the store's appearance to persons in the street should come in for close consideration.

The value of the neat and attractive "front" to the automotive establishment is reflected in the big sums of money spent by large and successful merchants for this purpose.

There is no other mechanical line in the country which

is displayed in show window settings more attractive than those which we often observe surrounding an exhibit of automobiles.

When we speak of the automobile dealer's "show windows," we mean, of course, those portions of the salesroom display arranged to catch the eye and command the attention of persons passing along in the street. Ordinarily the automobile dealer's "show windows" constitute the front and side extremes of his salesroom, usually the front, all on the same floor level. Only rarely will you find a dealer establishment of much consequence with show windows elevated materially above the level of the salesroom floor.

Good Reason for This

Some good reasons can be found for this. Originally the custom likely was started because of difficulties exacted by the highly elevated show window in the handling of cars. A common floor level naturally lends itself more readily to this phase of the automobile merchant's operations.

But there is another good reason for this popular arrangement bearing closely upon the necessity for a "front slick up."

Such a plan offers superior advantages for stock display. Under this arrangement the entire salesroom is, in fact, a show window—the "back" view being merely an extension of the effect beheld by the observer on the sidewalk or in the street.

The relationship between the "back" and the "front," from a "slick up" or display standpoint therefore, is very close—so much so that neglect of one is to neglect the other.

And just as the front of the show room is related in this manner to the back so is the entire exterior related to the interior.

(Continued on page 30)

History of Motor Car Depicted at Smithsonian

Exhibits in National Institution at Washington Include Original Productions of Many Pioneer Automobile Builders as Well as Examples of Modern Design

By H. L. COBB

Washington Correspondent of Motor Age

Washington, September 24.

A GREAT collection of automotive parts tracing the life history of the automobile is being assembled at the Smithsonian Institution, Hall of Arts and Industries, here, and eliciting the admiration of scores of automobile engineers who have visited the museum to examine the older cars exhibited there. The collection includes working models showing how every portion of an automobile motor operates, the relationship between parts and methods of lubrication. It is growing rapidly and officials expect it to be one of the most complete of the industrial groups.

The Autocar Co. has presented to the museum a 1921 model of its four cylinder truck motor, with cutaway portions and careful labeling so the layman can trace in detail every operation of the motor. The power plant is operated by an electric motor, geared down, with a wall switch so the visitor can operate it himself and stop it at any point for detailed study.

The Ford Co. has presented a full size operating model of the Ford ignition system, consisting of magneto, induction coil and commutator, operating in conjunction with a vibrator on the induction coil. In this model sparks appear at regular intervals on a graduated dial, these sparks being the same as jump the gap of the spark plug. The model is equipped with an exterior switch so the visitor may operate it.

A working model, driven by a hand crank, of half of a single cylinder of the sleeve valve type has been installed by the Willys-Knight representatives. The model includes a dial showing the various stages of the operation, such as: "Spark compression," "explosion," "exhaust opens," etc.

The Haynes Automobile Co. installed a six cylinder engine of the 1914 type, with cutaway sections showing all working parts. The motor is of 65 horsepower capacity and weighs 1,000 pounds.

Original Cars Shown

A full-size chassis and motor, with cutaways showing all working parts throughout, has been presented and installed by the Cadillac Motor Car Co.

The Autocar Co. also is represented by two beautiful $\frac{1}{4}$ scale models of its trucks, one with dump body.

In the historical section of the exhibit are a number of the original cars which occupy pinnacles in the automobile Hall of Fame. The first of these was constructed by Charles L. Duryea at Springfield, Mass., in 1892. With an old carriage body chassis, it has as a power plant a four-cycle, water cooled engine

The romance of the early days of the automotive industry is being preserved for posterity in the great Smithsonian Institution, a national museum, at Washington, D. C. The accompanying article describes the scope and purpose of this historical exhibit. The exhibit includes some of the first motor vehicles made in the United States in the days of experimental pioneering.

with spray carburetor and make and break ignition. Chain and sprocket drive is used, with two speeds forward and one in reverse. Steering is accomplished by an up and down motion of a long handle.

One of the first Cadillacs, of the vintage of 1903, has a post of honor. This ancient machine has a single cylinder engine, of 5 by 5 in. bore and stroke, mounted horizontally, giving 10 horsepower. Planetary transmission is used, with two speeds and reverse.

Elwood Haynes is represented by a one horsepower car built by him at Kokomo, Ind., in 1893-94. On its initial trip, July 4, 1894, it developed a speed of six to seven miles per hour. It is the gift of the late Mr. Haynes.

A rotating gas engine was used by Stephen M. Balzer in his model, constructed in 1894.

The original Oldsmobile, built by R. E. Olds at Lansing, Mich., which made a speed of ten miles per hour with four passengers on its maiden trip in 1896, is one of the interesting exhibits. It has a one-cylinder six horsepower plant.

Another interesting car was that built in 1901 by Louis S. Clarke, former vice president and consulting engineer of the Autocar Co. This car was driven from Ardmore, Pa., to the automobile show in

Madison Square Garden, New York City, on December 11, 1901, making the ninety-mile trip in six hours and fifteen minutes. It is thought to be the earliest American shaft driven gas automobile. It is equipped with sliding gear transmission, giving two speeds and reverse.

In another part of the museum is a collection, now only partially completed, showing the development and construction of the modern pneumatic automobile tire. An operating model of the type of machine used in weaving fabric carcasses for the pneumatic tire has been installed.

Some Regular Skid Chains Fit Balloon Tires

In announcing its full line of non-skid chains for balloon tires, the American Chain Company points out that special size chains are not necessary for all tires of the balloon type.

It is pointed out, for example, that a standard Weed chain intended for a cord tire 31x4 can be used properly on a balloon tire 31x4.40. Likewise, the car owner may use cord tire chains, size 32x4 $\frac{1}{2}$ on 32x4.95 balloon tires; 33x4 $\frac{1}{2}$ cord chains on 33x4.95 balloon tires, 34x4 $\frac{1}{2}$ chains on 34x4.95 balloons, 33x5 cord chains on 33x5.77 balloons, 34x5 chains on 34x5.77 balloons, and 35x5 chains on 35x5.77 balloons.

All other sizes of balloon tires require regular balloon tire chains although a dealer or car owner may fit 32x6.00 balloon tires with 33x6.00 balloon chains, or a 30x4.75 tire with 31x4.95 chains, simply by trimming the side chains down to the required size. Tire chains for sectional sizes are similar for all diameters, it is pointed out, except for length and number of cross chains.

It is also interesting to know that 4-inch cross chains can be used on 4.40 balloon tires, 4 $\frac{1}{2}$ cross chains on 4.75 tires, 4 $\frac{1}{2}$ cross chains on 4.95 tires and 5 in. cross chains on 5.25 and 5.77 balloon tires.

Timken Adds 1½ Ton Truck Axle to Its Line

Of interest to the manufacturers of small buses and 1½ ton truck chassis is the latest model of standard axle to be put into production by the Timken-Detroit Axle Company, Detroit, Mich. Known as type 5620, the new full floating bevel gear axle provides for a total weight allowance, including load of 7,000 lbs. on the rear wheels. Throughout, the axle is characterized by its sturdy oversize construction which harmonizes with factory statement that the axle was especially designed with a particular view to withstanding the exacting service expected of the faster commercial vehicle of today.

Designed for use with pneumatic tires only which allows a 57 in. tread with 2 in. spokes, axle 5620 is constructed with integral spring seats for mounting overslung springs 2½ in. wide and providing 39 in. spring centers using two ¾-in. spring clips on each spring. In the form of bosses on the spring seats provision is made for the attaching of radius rods.

The housing or body of the axle is a steel stamping of the banjo type formed of ¼ in. stock and having ends of 3½ in. diameter which are reinforced by heavy seamless tubular sleeves. Bolted to the front face of the housing which mounts the differential carrier unit is the pinion shaft, drive gear and differential assembly. The differential case assembly to which the drive gear is riveted, is carried on two Timken tapered roller bearings of ample capacity with readily accessible adjustment for the slight wear that will take place.

To prevent possible destruction of the gear teeth gearing momentary overloads which tend to force the gear and pinion teeth out of mesh, a safety device in the form of a large adjusting screw is mounted on the carrier at the back of the drive gear and is set at the factory to have .005 in. clearance with the gear. This screw is threaded into the case and provided with a lock nut.

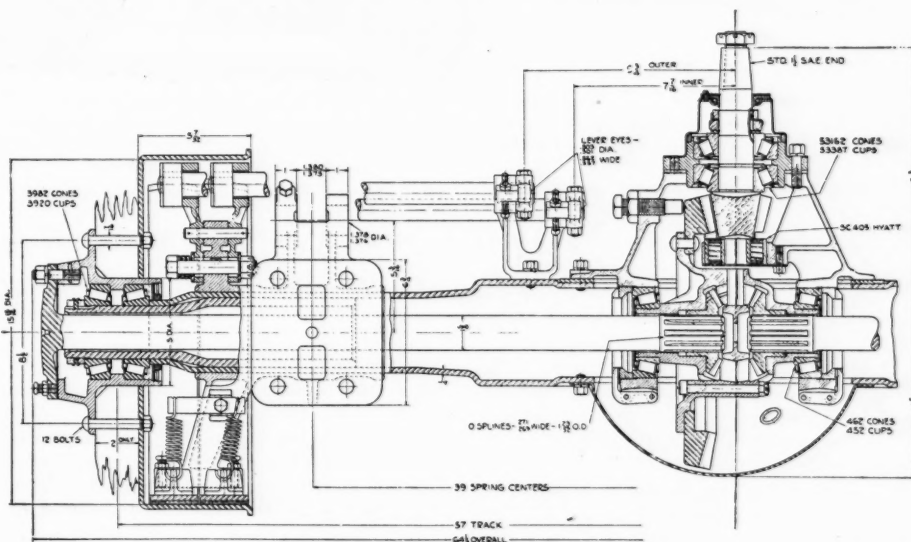
Bearings are provided directly in front and in back of the pinion teeth providing a straddle type of mounting making for exceptional ruggedness. Two Timken tapered roller bearings of the same size are mounted in front of the gear each having ample capacity to handle the full thrust, with one bearing taking the forward thrust and the other the reverse thrust. The rear bearing, a Hyatt having a radial load only, is of the straight roller type and permits an "in" and "out" adjustment of the pinion without any bearing adjustments. To take up bearing and end play of the forward bearings special adjustments are provided.

Gears which are of the helical bevel type made of chromium vanadium steel, with teeth carbonized and hardened are

dimensioned with a pitch diameter of 12 3/5 ins. and tooth face 1½ in. Adjustment of the pinion is accomplished by shims between the pinion cage and carrier face while the pinion cage and pinion shaft assembly are readily detachable by removing six cap screws.

Mounted side by side on each drum, the emergency and service brakes are of

tion of the wheel's skid thrust load through the driving flange while the load at the inner end of the axle shaft is taken by Timken tapered roller bearings and mounted on the differential case. Consisting of two Timken roller bearings of equal size and capacity, the wheel bearings are mounted on each housing sleeve and held in position by adjusting



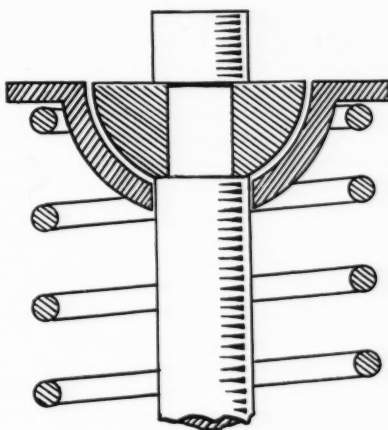
Cross sectional view of Timken axle made especially for small buses and 1½ ton trucks

the internal expanding band type. The size of the drums is 15½ in. in diameter and 2½ in. wide which permits their being submerged in 20 in. base rims when it is desired to use dual tires.

Axle shafts of 1½ in. diameter having upset driving flanges and made of high carbon nickel chromium steel provide a full floating type of drive. The axle shafts are designed to withstand a por-

nuts which are locked by a washer.

Malleable iron hubs, drilled for twelve 7/8 in. diameter hub-bolts for 2 in. wide wood spokes and stamped steel drums of 3/8 in. stock with reinforcing flange, are supplied as standard equipment. The axle, complete with hubs, flanges, bolts, nuts, wheel bearings and brake drums, weighs 445 pounds, not crated.



Ball and socket construction of Elliot Valve spring retainer

Race Driver Develops Valve Spring Retainer

Frank Elliot, well known race driver, is a student of the car as well as the track, and in analyzing the trouble caused at times by valves operating at high speed and under the strain of heavily compressed springs, he has conceived the idea of a ball and socket type of spring retainer which would eliminate most of the side thrust.

The thrust of a conventional spring is never exactly parallel to the valve stem, the result being that the stem is pushed sideways, so that there is excessive wear on the stem and guide. The illustration shows Elliot's retainer, this being put on the market by Elliot Brothers, 331 E 33rd St., Los Angeles, Cal. The ball is split in two parts and is fitted into a groove at the tip of the valve stem.

Foursome Roadsters and Brougham Round Out Gardner Line for 1926



Left: The foursome roadster on the eight-cylinder chassis, a new addition to the Gardner line for 1926. This body style also is made on the 6-cylinder chassis. Center: Gardner Anniversary Sedan on 6-cylinder chassis, listing at \$1,595. Right: New brougham on 6-cylinder chassis which lists at \$1,495

Adjustable Steering Wheel Is New Feature of Roadsters—13 Body Types on Six and Eight Chassis Comprise Company's Offerings

GARDNER Motor Company's 1926 line as finally rounded out and as it now stands contains an offering of thirteen different units mounted on the six and eight chassis. Six of these units, designated as Model 6-A, are on the six cylinder chassis while seven of them, designated as Model 8-A, are on the eight.

The 1926 line besides including the Gardner Company's Fiftieth Anniversary Sedan, which was introduced about a month previous to formal announcement of 1926 models, takes in one new body type on both chassis, the Foursome Roadster, and a five-passenger brougham on the six. The Foursome Roadster on the six lists at \$1,595 f. o. b. factory while the one on the eight lists at \$1,995. The new brougham on the six lists at \$1,495.

As now constituted the Gardner line is as follows:

Model 6-A (Six Cylinder)

Ship.	Wt.	Pass.	Body Style	Price
3070	5-p	Touring	.....	\$1395
3200	5-p	Brougham	.....	1495
3210	4-p	Foursome Cabriolet	.....	1845
3030	4-p	Foursome Roadster	.....	1595
3280	5-p	Anniversary Sedan	.....	1595
3300	5-p	De Luxe Sedan	.....	1895

Model 8-A (Eight Cylinder)

3350	5-p	Touring	.....	1995
3510	5-p	Brougham	.....	1995
3480	4-p	Foursome Cabriolet	.....	2245
3350	4-p	Foursome Roadster	.....	1995
3620	5-p	Anniversary Sedan	.....	1995
3620	5-p	Sport Sedan	.....	2295
3600	5-p	De Luxe Sedan	.....	2495

No effort was made by Gardner to bring about radical mechanical departures for its 1926 list of passenger cars. In fact,

save for the appearance of the new body types mentioned the only changes are in minor refinements and a wider choice of colors. With the eights the company now is furnishing an ornamental radiator emblem in the form of a silver Griffin which is featured in the Gardner coat of arms. The emblem has proved quite popular with dealers since it was first brought out and there have been many calls for it on sixes on which models, however, the emblem is not offered as standard equipment.

The Gardner product, generally speaking remains substantially as it was, the big element in the factory's 1926 program being to bring the price of the closed car down more to the level of the open car price without making a sacrifice in closed car quality. The company's Anniversary Sedan on the eight now lists at the price of the eight touring. The five passenger brougham on the six lists at just \$100 more than the six touring.

Gardner's newest body units, it is explained, contemplated list prices from \$200 to \$300 higher than those in the current table before these new model introductions, a lowering of the original figures being decided upon to meet conditions obtaining as a result of the recent movement of price reductions. At the same time, it is declared the downward revision of these figures was made without eliminating any equipment or qualities originally contemplated.

The five passenger brougham which now appears among the Gardner sixes is a short-coupled four-door body job having a full front seat instead of the divided seat according to popular practice in such types of body. The finish is two-tone lacquer, trimmings are ribbed velvet. Hardware conforms to the high

standard obtaining in Gardner's highest priced jobs. The instrument board also conforms to the Gardner standard, all units being under glass, the instruments including a heat indicator and a gasoline gage. There is a one-piece windshield operating with a rotary lift, a satin rear window curtain and other modern features. The rear end of the front seat is cut away to provide extra leg room.

Equipment going with the five passenger brougham is as follows: Automatic windshield wiper, cowl lamp, nicked radiator, balloon tires, natural wood wheels, trunk rack, dome light, rear vision mirror and a transmission lock.

Adjustable Steering Wheel

One of the interesting features of the Foursome Roadster, which is offered on either the six or eight chassis, is its adjustable steering wheel, so arranged that, by use of a wrench the driver can easily raise or lower the wheel over a playing space of two inches. This makes it possible for the driver to elevate or lower the wheel when it interferes with clear vision of the road ahead and to fix the position of the wheel for purposes of greater comfort and convenience. Gardner finds that the feature has a strong merchandising appeal.

This roadster also has a two-tone finish, nicked radiator, nickel-trimmed lamps, cowl lamps, five Distel wheels and a spare tire, snubbers all around, bumpers front and rear, nicked windshield frame. There is a rumble seat and the top can either be let down or entirely removed at the driver's discretion. The upholstery of both the front seat and the rumble seat is in machine buffed Spanish leather in a color to harmonize with the body finish. There is a

compartment behind the main seat for the storage of tools and light luggage.

Gardner's Anniversary Sedan, which as previously stated, was really introduced some time before the formal announcement of the 1926 line, is proving the outstanding body of the entire list from the standpoint of popularity. This applies both to the six and the eight. The unit has been extensively described previously in this magazine and the trade is more familiar with it likely than with the other later Gardner additions. Standard equipments with the model are as follows: Transmission lock, snubbers, front and rear; balloon tires, Distel wheels, automatic windshield wiper, stop light, large nickel-trimmed lamps, indirect non-glare lighting, cowl lamps, one-piece ventilating windshield operated by rotary lift, cowl ventilator, rear-vision mirror.

Closed Car Production Heavy

The Gardner Company's production at present is running nearly 90 per cent closed cars, although there is a big demand and an outlook for a growing demand for the Foursome Roadsters. The company expects September's business to set a new record and looks for no tapering off in production until about November 1. September will go down, it is said, as the biggest month of the year. The big sales stimulus of the season is said to have come through the popularity of the eight-in-line cars in addition to the influence of intensive national advertising. Production has increased at the Gardner plant steadily since last April.

More Profits From Merchandising

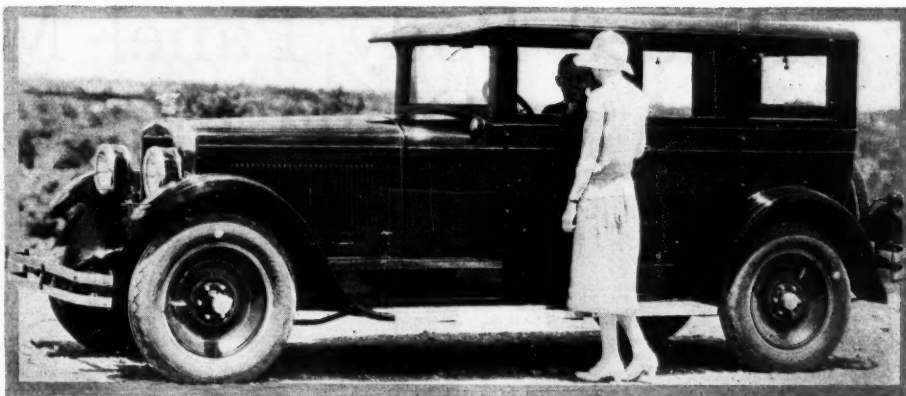
Many excellent merchandising suggestions are offered in the book prepared by Edward A. Filene under the title of "The Model Stock Plan—More Profits From Merchandising." The author is president of William Filene's Sons Company, operators of the large and highly successful department store in Boston, who is well qualified to speak on the subject of retail selling. While much of Mr. Filene's book deals with department store fundamentals he offers ideas in general for the merchandiser which any retail dealer would find interesting. Some of the principles he enunciates are especially applicable to the business of retailing automotive accessories.

One of these sections relates to the planning of the store's buyer, the following being some of the "main facts" which Mr. Filene says the buyer has to draw on in this important phase of the work:

"Statistics showing what was sold of each class of merchandise in previous seasons—this is the history that enters into the making of the plan.

"Statistics of what is currently selling—the facts by classes and amounts of merchandise gathered day by day.

"Records showing the kinds of merchandise that customers are calling for



The Gardner Eight Anniversary Sedan, listing at \$1,995, the same price as the touring car. This model and the Six are proving the company's most popular body offerings

and that cannot be supplied from stock.

"Information, presented in statistical form or otherwise, as to what competitors are selling that you do not have in stock.

"Early data regarding merchandise offered or to be offered by manufacturers or wholesalers.

"What is selling in other cities or abroad.

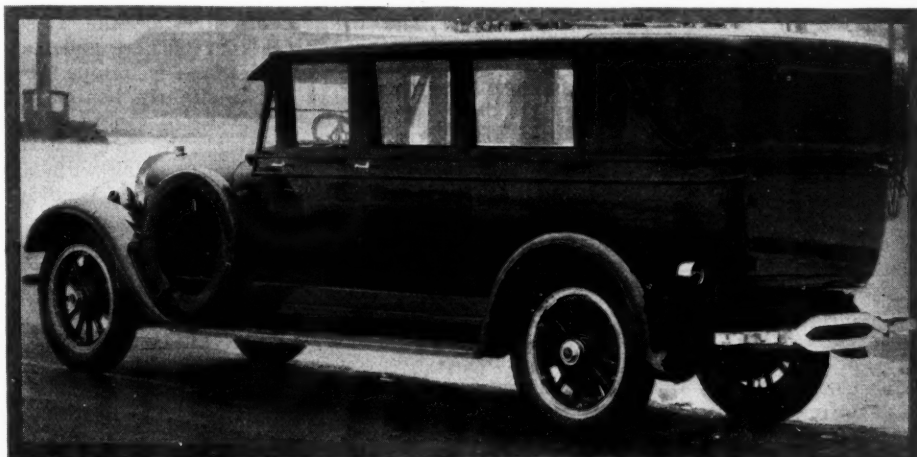
"Information as to the probable pur-

chasing power of the community as compared with commodity prices."

The purpose of "The Model Stock Plan," as dealt with in this work is "to have the right goods, at the right time, in the right quantities, and at the right prices. "The Model Stock Plan" is discussed extensively.

Mr. Filene's book is published by the A. W. Shaw Company, New York, Chicago and London. The price is \$2.50.

Lincoln Chassis 14 in. Longer Than Standard Now Available



Three-quarter view of the Lincoln chassis with a special body for ambulance use. The chassis is 14 in. longer than the standard

THE Lincoln Motor Co. division of Ford Motor Company is now producing a chassis 14 in. longer than standard to meet the existing demand for a high powered chassis suitable for mounting ambulance, police patrol and funeral coach bodies.

Except for the changes necessary to the frame, propeller shaft and brake rods, the 150 in. chassis is identical with the standard 136 in. model. The price of the

new chassis alone is \$3,800 while complete with ambulance body it lists at \$6,800.

The bodies for the funeral coaches now being built by the coach makers are in keeping with the high quality of the "standard" bodies, having identical style of design and appearance and same completeness of appointments. According to the factory engineers, the new chassis is not designed or recommended for heavy bus work or the operation of fire pumps.

Raised Body Panel Marks New Diana Phaeton



Raised panel forms arrowhead on hood of new Diana phaeton

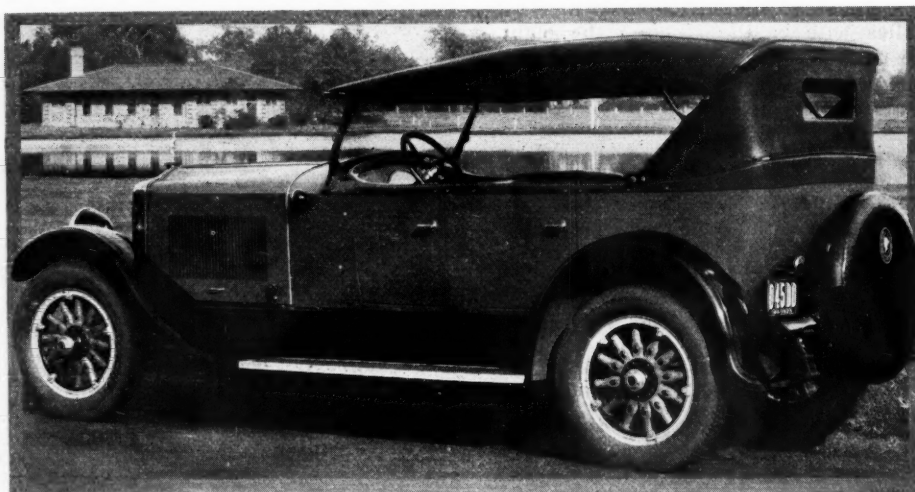
Displaces Moulding and Forms Arrowhead on Hood — Seats Are Extra Wide and Sides Are High.

MOON Motor Car Co. has started production on the new five passenger phaeton "arrow head" model of the Diana which sells for \$1895 f. o. b. factory. Deliveries will begin soon.

A number of unique ideas have been incorporated into the design of the phaeton. The moulding which has been so prevalent on so many makes of cars during the past few years has disappeared entirely and a raised panel, different from anything seen before, has been substituted. This effect is achieved by offsetting the body panels at approximately the same location formerly occupied by a moulding and eventually working this offset over the cowl and hood and forming an "Arrow Head" with its apex at the rear end of the radiator shell. The arrow is not terminated at this point but spread out into a three-quarter inch line running down the front edge of the hood, giving a distinctive appearance at this point.

The European tendency to raise the body sides, which give the appearance of a passenger sitting in rather than on the car has been followed, the result being a considerably lowered appearance, though as a matter of fact the head room in the body remains unchanged.

The general thought in designing the



Photograph of new Diana phaeton showing how raised panel is carried all the way around the body

phaeton was to compose a series of fully rounded and freely flowing lines with the entire elimination of any sharp corners or breaks which might cause the eye to falter for a moment. The recent trend to widen automobile bodies to the fullest extent possible has also been followed with the result that both the front and rear seats of the phaeton are unusually roomy and will seat their full quota of passengers with ease and comfort.

The method of carrying the raised panel around the rear corners and back of the body of the Diana is unique. Beginning at a point slightly behind the rear door the offset panel tapers out to a greater width due to the fact that the bottom edge remains parallel with the chassis frame while the top edge curves upward in a gradually rising curve to give the proper height for the rear seat

back, thus causing the offset panel to vary in width from one-half to four inches at its widest point at the back of the car.

The body is done in two tone "Duco," the offset panel being finished in sage green while the lower part of the body and hood is in soft French gray, this color combination being neutralized by a green stripe about one-quarter of an inch wide which runs along the raised portion of the body and hood.

The equipment of the phaeton includes, Lockheed hydraulic four-wheel brakes, "easy park" cam and lever type steering gear, one piece ventilating windshield, heat indicator on the instrument board and a light control lever on the steering column.

Another feature of the phaeton which is now standard on all Dianas is the Diana statuette on the radiator cap.

Campaign Letter Goes to Physicians

Harold W. Booth, sales manager of the Willys-Overland St. Louis branch in St. Louis recently conducted a direct-by-mail advertising campaign addressed to all members of the medical profession in St. Louis. All letters of the campaign were individually signed and mailed as first class postage.

A specimen letter follows:

"Dear Doctor:

"If you could have built a car that would fully meet the requirements of your arduous profession, wouldn't the specifications read something like this?

"Two-passenger, enclosed (of course), non-rumble construction, leather upholstered, wide doors, big rear window, one piece windshield, cowl ventilator, side door to rear compartment for instrument case (or golf clubs), "effortless" steering

and gear changing, engine with no vibration at any speed, a car of dignified appearance, with a permanent lacquer finish, and (most important) the lasting quiet that is only found in Knight sleeve-valve engines.

"Briefly, those are the specifications of the Willys-Knight Coupe. We have this Professional Coupe on our floor and extend you a cordial invitation to inspect it. Another car that has been driven a little is ready to prove our claims as regards performance.

"May we have the pleasure of showing you this car that might almost have been created to fit your specifications? Truly, its design spells "Custom-Built."

Yours very truly,

WILLYS-OVERLAND, Inc.,
Retail Sales Manager."

Shows Indicate Rapid Radio Expansion

Business for Next Five Months Should Exceed That of Corresponding Period Last Year

Greater Values Now

MAKING due allowance for the high enthusiasm generated by two big national expositions and several affiliated events of scarcely less importance in New York this month, there is good reason to believe that the next five months will develop more radio business than for the corresponding period last year. That may appear to be the usual reaction to the stimulus such affairs produce, but there seems to be a firm basis for the prophecy freely made as the season opens.

The most obvious reason is the greater range of popular appeal in the new products, some of which were shown for the first time at one or both of the expositions, and few of which have been widely distributed thus far. The new receivers include important though not revolutionary refinements in their internal construction and a decidedly striking improvement externally. Some rather sensational developments in vacuum tubes were shown. The list of accessories has been increased also, among them many battery eliminators, chargers, etc., while parts and kits for home construction continue to be shown in considerable number, despite the tendency in some quarters to consider this market completely dead.

There is general agreement, wherever manufacturers, wholesalers or retailers assemble that the refinement in exterior appearance of radio receiving sets will be the major factor in extending the market this season, resulting in the purchase of sets by a vast number of people to whom even the more attractive of last year's receivers did not especially appeal.

Summed up, the radio industry again exhibits several points in common with things automotive, which must have been self-evident to automotive men who visited the expositions at the Bronx Armory and Grand Central Palace, New York.

Among these are the greater values this year, for products have been improved and the prices reduced in a majority of instances; the probable expansion of installment plan sales due to the advent of the more expensive console models, and the likelihood of the "trade-in" phase developing to an important point.

The three big events were the Fourth Annual National Radio Exposition which opened Sept. 12 at Grand Central Palace and closed Sept. 19; the Second Annual Radio World's Fair, official Radio Manufacturers' Association show, which ran from Sept. 14 to 19 at the 258th Field Artillery Armory in the Bronx, and the Radio Industries' Annual Banquet, which took place in the ballroom of the Hotel

Commodore on the evening of Sept. 16.

Both of the radio shows occupied more floor space this year than last, had more exhibits and were well attended. While no accurate figures were available, it was generally accepted that the shows were both successful from a merchandising point of view. Reports were current that actual orders placed were in excess of those placed either at Madison Square Garden, where the First Radio World's Fair was held last year, or in last year's show at the Palace.

Columbus Show Date

THE second annual radio show at Columbus, O., will be held at the Memorial Hall, November 7 to 14 inclusive under the auspices of the Ohio Radio Show Co., and the Columbus Daily Dispatch. The Ohio Radio Show Co., consists of M. A. Pixley, president of the Erner & Hopkins Co., large radio and electric dealers, Lee M. Boda and Robert F. Boda. The large hall in which the display will be held will be artistically decorated and the arrangements will be in booths. All of the latest radio sets and supplies will be displayed. Already a large number of manufacturers and dealers have announced their intention of exhibiting their products. Robert F. Boda, is general manager.

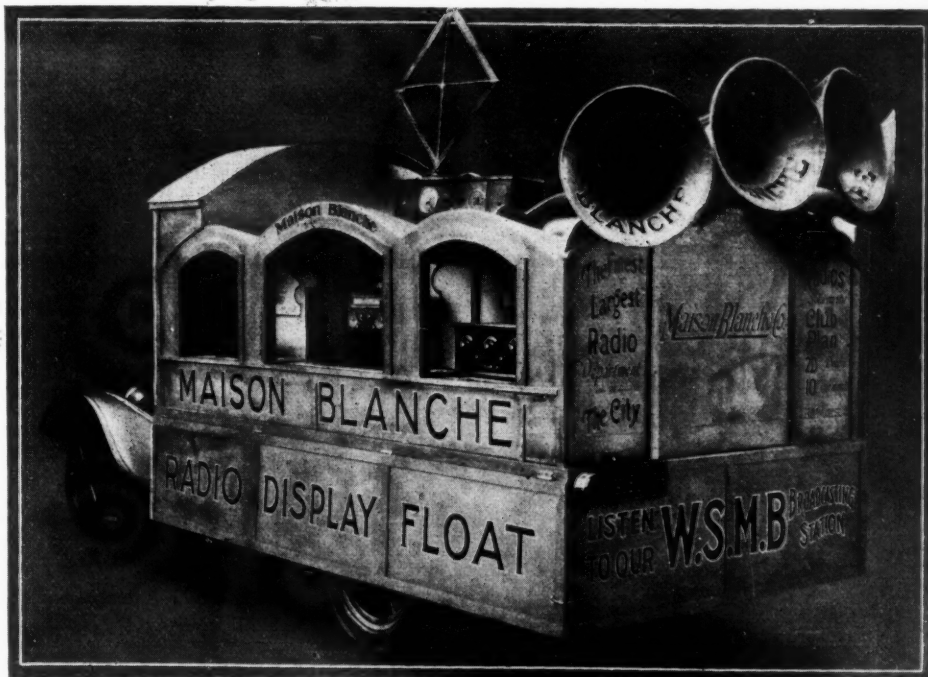
Indianapolis Radio Show

INDIANAPOLIS, Sept. 26.—Indianapolis is experiencing its first Radio Show in an exhibit put on by the Broadcast Listeners' League of this city. Practically all of the distributors of leading radio lines have exhibits and several of the wholesale accessory dealers who also handle radio are participating in the affair. The show is staged at the Cadle Tabernacle and after the first night the crowds began to grow until capacity houses appear billed for the remainder of the week. Leading distributors with displays of sets report good business prospects are being listed at afternoon and night shows, and that a considerable amount of actual sales will be developed by the show. Many distributors report that growing retail organization throughout the state will make new retail records this fall and winter.

Radio Dealers Named

ATLANTA, Sept. 26.—Sam D. Katz, manager of the Automotive Sales & Service Co., 10 E. Harris St., Atlanta, distributors of the Splitdorf Radio line, advises that the company is now appointing dealer agencies in the Atlanta territory to handle the new line of modern receivers now being put out by the Splitdorf company.

Equipped to Sell Radio Sets

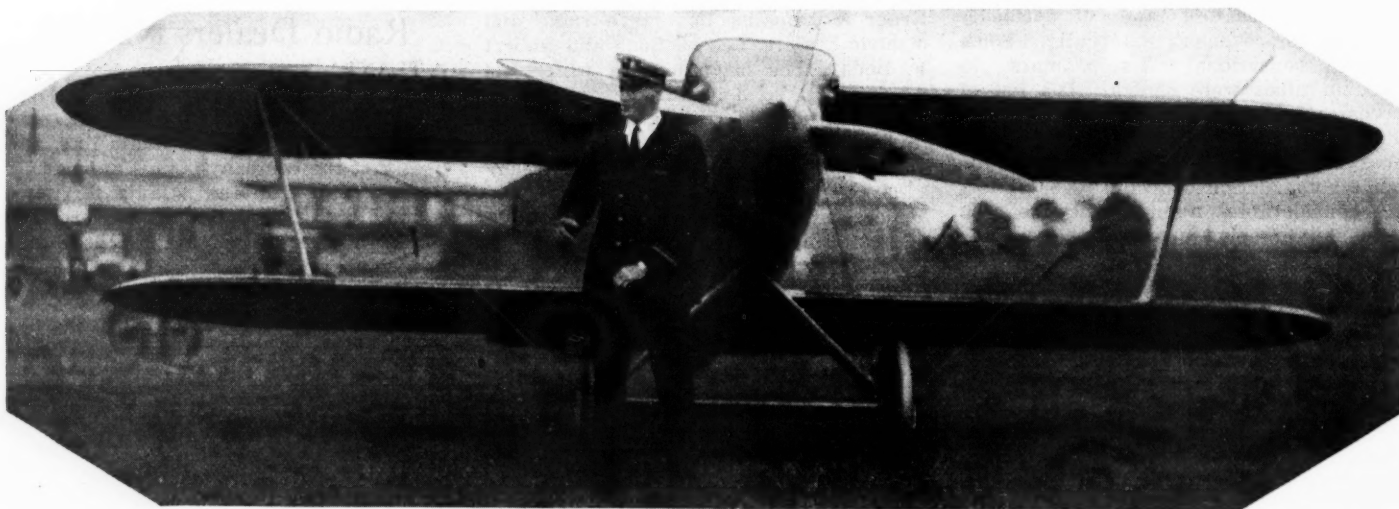


This truck is used by a large department store in New Orleans to sell radio sets. By means of a powerful receiving set and four loud speaking horns this truck makes radio programs audible over wide areas. Salesmen accompany the truck

MOTOR AGE'S PICTURE PAGES



RARIN' TO GO. Just before the start of a 15-mile-an-hour-dash at Huntington Park, Cal. A 1902 Oldsmobile, an 1897 Sears-Roebuck and a Maxwell of more recent vintage participated. The Oldsmobile, entered by Leslie R. Lumley, Huntington Park dealer, won.

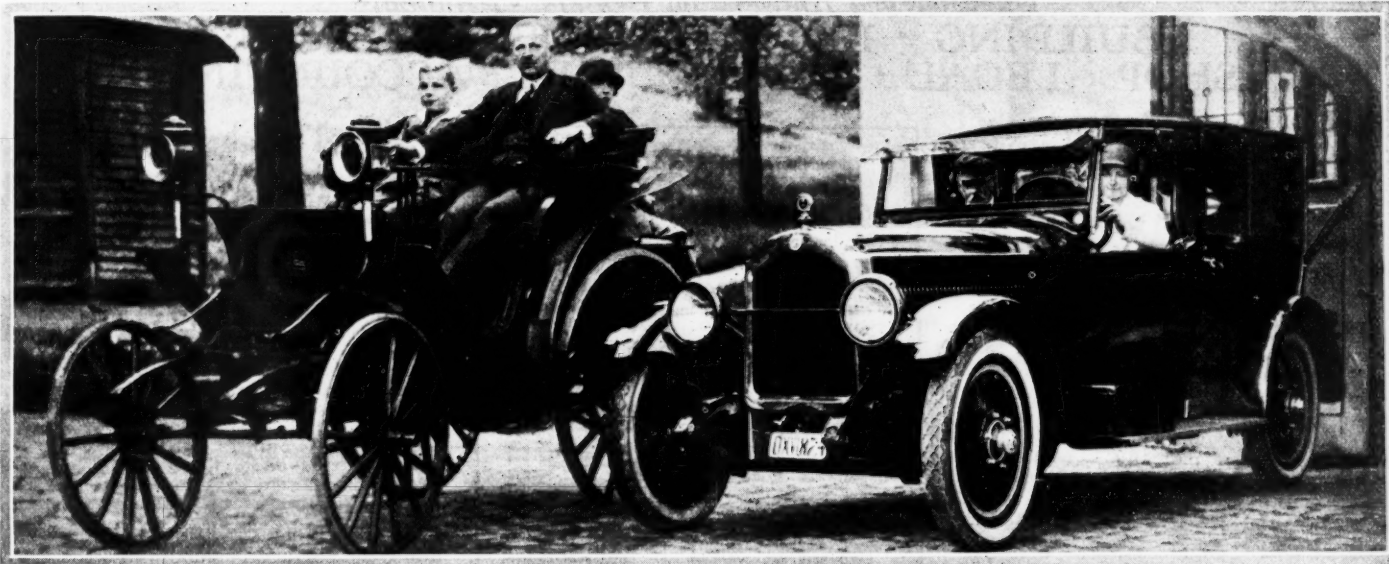


FLIER MAKES 302 MILES AN HOUR IN AIRPLANE. Lieut. Alford Williams, U.S.N., is shown standing before the new Curtiss pursuit plane in which on Friday, Sept. 18, he flew 302 miles an hour at Mitchel Field, Long Island, N. Y.

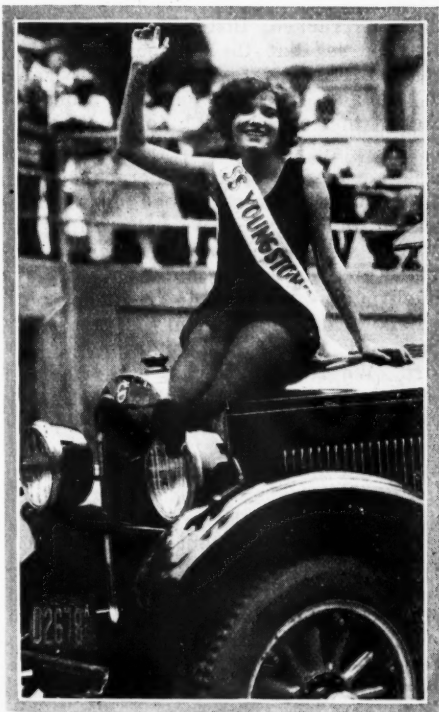


WIDEAWAKE PUBLICITY. H. O. Harrison Co., Hudson-Essex distributors, San Francisco, "cashed in" on the evolution discussion. The pilot of the 1909 car wore a "monkey suit," while the 1925 coach carried a live monkey as a passenger.

S OF AUTOMOTIVE INTEREST



THE MARCH OF PROGRESS. Baron Liebieg of Czecho-Slovakia at the guiding stick or handle of an automotive Methusalem. The baroness is at the wheel of her Studebaker Bix Six limousine. The picture was furnished by E. & J. Frolich, automobile dealers at Prague.

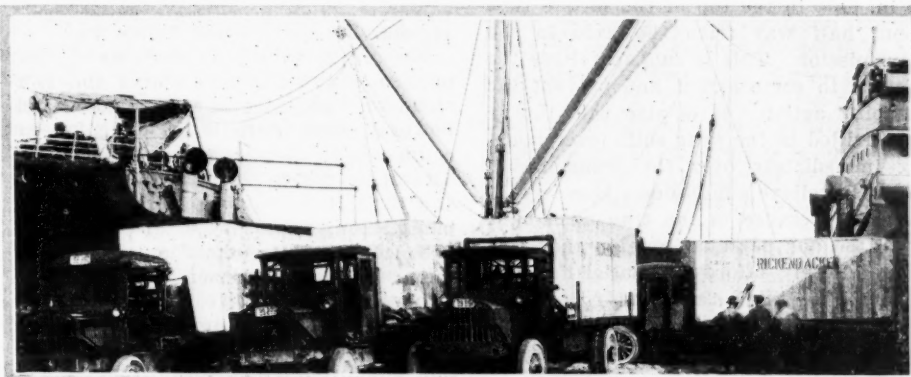


ANOTHER CONTEST. Whether Youngstown's place in the sun should be based on steel making or feminine pulchritude is difficult to decide after seeing Miss Mildred Moore who represented the Ohio City at the Atlantic City Beauty Pageant.

DETROIT TO ANTWERP — DIRECT. Consignment of Rickenbacker cars being loaded for shipment at Detroit on the Belgian S. S. "Nico." This method, rather than shipping by rail to the seaboard, saves time and money, according to factory representatives.



A "ONE-LUNGER" CLIMBED PIKES PEAK. Roscoe Butcher of Wichita, Kans., seated in his motor car of 1902 vintage, which recently chugged its way up the famous peak. The climb was made in four hours, and the car went into low speed only once—at the start—staying there and not being changed for the entire distance.



The READERS' CLEARING HOUSE

Questions and Answers on Dealers' Problems

BUILDING - ELECTRICAL - FLAT RATES
SHOP - LEGAL - PAINT & TRIM - ACCOUNTING

Axle Pumps Grease Into the Transmission

Q—We wish to ask if you have ever met this experience. We have a party who has a model K-45 Buick and he complains that when he puts transmission grease into the rear axle that within a few days this grease is in the transmission case. The construction of this Buick is such that there is a path for grease from the rear axle to the transmission but one would never expect it to travel in that direction. We would be pleased to know if you have ever met this condition before and what is the cure. We have not examined this car, but thought we would write first and see if you could offer an explanation.

The owner claims that he has many times taken the grease out from the transmission case and returned it to the rear axle only to have it return to the transmission case again. He has to keep a special leather cover over the shift handle where it comes from the transmission case in order to prevent the grease from coming out all over the floor. He claims that the transmission case will fill so full that when he opens the cock that the grease will run out with a force indicating that it is under pressure slightly. We thank you for any suggestions that you may make about this peculiar action. —Baender Engineering Co., Parsons, Kansas.

Looseness in Pinion Bearing

There is apparently some looseness in the pinion bearing which allows the pinion and drive shaft to work back and forth, thus producing a pumping action. On this model Buick we understand that immediately in front of the pinion in the rear axle is a large washer. The rotation of the bevel ring gear will tend to throw grease in all directions and if this washer moves forward there is a possibility of grease being thrown behind it. As the drive shaft moves back and forth the washer will move forward and force the grease up the torque tube. The remedy would appear to be in correcting this condition of end play. We are told however, that it also helps to drill a $\frac{1}{8}$ in. hole in the top of the torque tube about half way from the axle to the transmission. This is said to relieve the vacuum to some extent and prevent the pumping action. It is also said that a hole drilled in the gear shift lever housing immediately over the transmission will also relieve conditions. However, if there is pressure in the transmission it would be our personal opinion that this would merely afford an outlet for the grease. We think the remedy is worth trying however, for it is simple and it would be no great job to plug the holes if the results are not as anticipated.

MOTOR AGE'S READERS' CLEARING HOUSE INDEX

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STUDY THE CONSTRUCTION

Q—Will you please print in the Motor AGE a blue print of the water pump, oil pump and distributor and explain how to take the water pump off of the Continental engine in a Davis motor car.—Harold A. Bogart, Sweet Valley, Pa.

We regret to advise that we do not have a drawing which shows the construction you refer to. We understand, however, that there is no difficulty encountered in removing the water pump. The drive comes through the generator and through a universal coupling to the pump. It is necessary to disconnect the hose connections, take the bolts out of the coupling and loosen the pump and remove it. We believe that the average mechanic would have no trouble in doing this, merely by observing the construction employed.

Welded Brake Drum on a Ford—Will It Do?

Q—Last winter in overhauling a Ford we brazed a small crack in the brake drum. Since then this car has given trouble with the brakes holding and frequent adjustments of the brake bands seem necessary. Other garage men maintain that it is impossible to braze or weld a brake drum and get satisfactory results afterwards, even if the surface of the drum is smooth and the drum is perfectly round. We have welded many of them and have never had the least bit of trouble before. We would like to know what you think of this and what experience other Motor AGE readers have had.—Baender Engineering Co., Parsons, Kansas.

If a welding or brazing job is well done, the surface is smooth and the drum is turned so as to be perfectly circular, we can see no reason for a job of this sort giving trouble. We do not recall that this question has come up in the Clearing House section, at least for the past three years, so we hope that other Motor AGE readers will let us know if they have had similar experience. Perhaps one reason for replacing a drum that is cracked, instead of welding or brazing, is that the comparatively low cost of Ford parts, makes it advisable to replace those which are worn or broken instead of trying to repair them.

This may account for the practice of other garages in replacing a cracked drum, rather than having a good engineering reason for doing so. We believe that the type of service to which the car is subjected and the way it is driven will have much more effect on the frequency with which brake adjustment is necessary than any theoretical condition of this sort. We recently saw a case where a Ford car in perfect condition went down a hill about four blocks long. The oil level was about half way between the lower and upper pet cock. The application of the brakes down this fairly steep hill for four blocks was sufficient to necessitate readjustment when the car reached the bottom of the hill. In this case the brake drum was in perfect condition, but if it had been a drum which had been welded there might have been some tendency to blame the drum for the necessity of readjusting.

A TRICK IN REMOVING ESSEX PISTONS

Q—We have been looking at page 24 of the July 9, 1925 issue of Motor AGE and have a suggestion to offer in regard to removing Essex pistons. Where trouble is experienced with the No. 2 piston it is well to remove the No. 1 piston first and then the No. 2 can be slid forward and taken out past the No. 1 crank pin.—L. R. Young, 44 Market Street, Muskegon, Mich.

Planning Your New Building

By TOM WILDER



Ample Space and Natural Ramp? It Can't Be True!

Q.—We would like to have some information on size, best arrangement and structure of a building for storage with a capacity of 100 cars on ground floor, and approximately same on second floor. On the ground floor a wash rack, a small office, ladies and men's toilet, locker space and space for minor adjustments and oil and gas service inside of building.

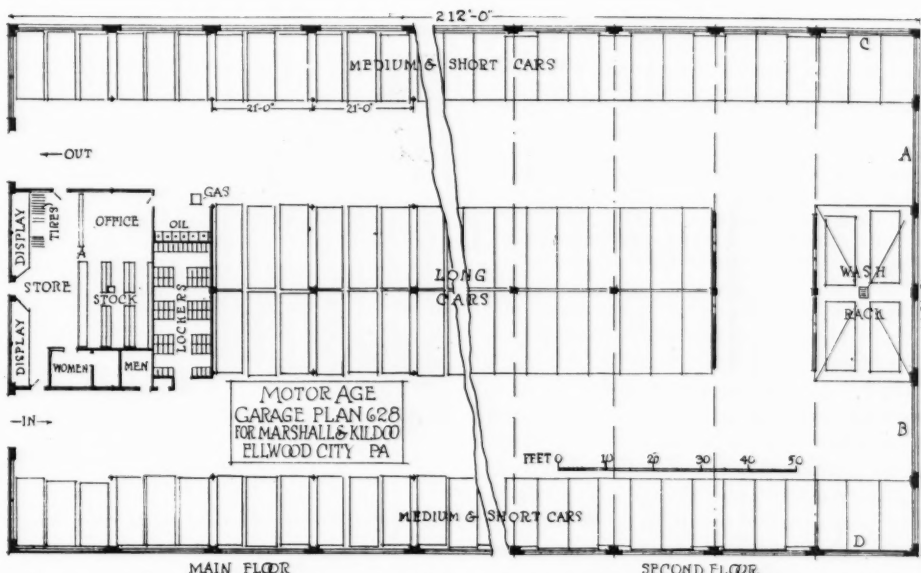
The second floor will be entered by a street level due to a rise in ground. There should be a stairway for attendants to go back and forth and also locker space and ladies and men's toilet. We would like also to have you advise best method of heating. The space is not limited in reference to ground space, the building will be located as at a corner.—Harold L. Kildoo, Marshall & Kildoo, 25 Line Avenue, Ellwood City, Penn.

We have been a little at a loss to know which way the ground sloped on your lot and consequently where the entrance would be to the second floor. We have assumed, for the purpose of getting started, that the street in front was level and that the lot sloped back so that by building a driveway alongside, it could be entered toward the back end or at the rear, and if this is the case, doorways may be installed at any position along the side walls, such as (C) or (D), or if it is convenient at (A) or (B), the latter would be preferred, inasmuch as these spaces do not interfere with any storage space.

In case the ground slopes in the street upon which the building will face, it might be better to make the building longer on the frontage and not so deep. You will note that this building is divided into two 55-foot sections, each having storage on the side with an aisle space through the center. This makes an ideal storage layout, but if your street slopes as just suggested, it might be well to make the frontage consist of three or even four of these 55 foot sections, making a center entrance at one end in one section and at the other end in another section on the second floor. This latter scheme would be the better of the two since both of the entrances would be on the main street.

You will note that on the first floor, the space is divided up by columns which support the second floor, these columns being spaced 21 feet on centers. This measurement is used because it makes a good liberal storage space for three cars and will allow for a 12 by 12 or even 14 by 14 concrete column. In order to gain space, however, we would suggest that you use pipe columns filled with concrete which will not be more than 5 inches in diameter, and will allow just that much more space between the cars.

On the second floor the cars are spaced so that each has 6½ feet. Here the use of trusses will avoid the necessity of



We have shown only half of each floor as the completed floor would merely be a repetition of the half. 50 ft. units instead of 55 ft. could be used but if you expect a reasonably large number of large cars we would recommend the larger measurement

columns, although the columns may be used as on the first floor, if desired. We would suggest that you use the second floor for your minor repairs and adjustments where the light will be better and where space can be more easily arranged, especially if you do not use the columns on the second floor. We have shown a room for lockers on the first floor, but believe that a better way is to have lockers built into the wall at each car space.

The windows on the side wall should occupy only the upper one-third of the wall space, so that they will not interfere in any way with the lockers. We have not shown a stairway, but it may be installed almost anywhere, preferably near the office.

Our building as laid out will hold approximately 200 cars, depending somewhat upon the amount of space used in repair and other features.

The heating may be either steam of the direct type with coils along the outside walls and ceilings, or may be a combination of direct steam with some sort of hot blast which will also help in ventilating.

THE STUFF THAT GRIDS ARE MADE OF

Q.—Is the grid of a storage battery made of pure lead or is it made of a composition of metals? If so, is there any difference in the positive and negative grid? —J. W. Stratton, R. 4, Box 339, Springfield, Mo.

The grid of a storage battery is made of lead and antimony. The antimony is added to give the grid the stiffness which the pure lead does not have. There is

no difference between the grid used for positive and negative plates. The difference is in the paste.

Trouble May Be in Trough

Q.—We have a sport model Hudson, year of 1921. This engine has been rebored by a local garage but since that time has scored No. 1 cylinder on two different occasions. One mechanic says that the oil pressure or the oil pump plunger must be changed according to the size of the motor which has been bored to .020 oversize. We have examined this motor for oil pipes, for being plugged up and have found everything in first class shape. The writer has never, in all his experience, changed the oil system because the motor has been rebored. Cooke & Paul Garage, 116 Exchange street, Freeport, Illinois.

It is not necessary to increase the oil pressure on any engine solely because the cylinders have been enlarged by reboring or grinding. In the case of this particular car it may be that the trough or scoop of the No. 1 rod is deranged. The trough may be in such a condition that it is leaking or so deep that the oil level is not sufficient to touch the dipper on the connecting rod. The dipper also may be deranged, broken off, or too short.

With regard to oil pump it is advisable if the car is to be driven at high speed for long drives to increase the stroke of the oil pump to about 3/32 of an inch. A later model sub base for the oiling system has been provided and we understand that this can be installed on the 1921 cars. It may be secured from any authorized Hudson dealer and its installation is recommended.



Defeating Old Man Wear and Tear

Test With One Piston Left Out

Q.—I have encountered a knock in an Essex four, that I cannot take out. It sounds like a loose connecting rod but I have tightened them, fit new pins and aligned rods. By shorting No. 3 plug the noise disappeared. I have lapped an over-size piston in the cylinder. Have changed rods and pistons around in different cylinders, but knock is always in No. 3 cylinder. I have examined cylinder for ridges or any chance to strike. Any information you might give will be appreciated. Main Garage, Kenton, Ohio.

It is possible that you have a loose piston in the No. 3 cylinder. Lapping of aluminum alloy pistons with ordinary abrasive is not recommended and it is possible that the process left the piston with more clearance than it had originally. We would suggest that you very carefully micrometer the cylinder bore at several points to see if it is uniform in diameter and without taper or ridges and if it is you can then try the piston in the cylinder testing it with a feeler gage to determine the approximate diametral clearance. If the clearance is in excess of .007 for the old style piston it will cause piston slap. The new style split skirt pistons may be fitted to as close as .003.

As a last resort we might suggest that you remove the connecting rod and piston assembly from the No. 3 cylinder and operate the engine to see whether or not the knock is still present. If the removal of the piston shows that the knock has been eliminated it would indicate that the noise is caused from some part of the assembly and only cut and try methods of testing each part of the assembly will give the ultimate location of the noise.

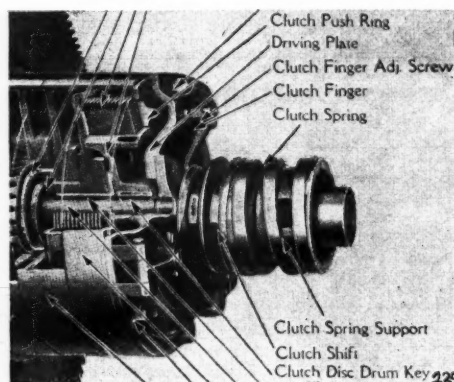
It is also advisable to check the amount of clearance between the piston pin and the piston boss when the pistons are at normal operating temperature. If the pins are fitted to what would be considered a good fit when cold the expansion caused from engine temperature will usually give piston pin knock after the engine has warmed up. We assume that you have checked these points and are aware of the conditions mentioned and if our suggestions do not enable you to cure the trouble, we would appreciate hearing from you again.

CLUTCH ADJUSTMENT MEASUREMENTS

Q.—I find in one of my instruction books on the Ford car where it says when the clutch is properly adjusted there should be 13/16 of an inch space between the lower side of the clutch and the drive plate. I am not sure that I understand what this means and will you kindly explain it. Kentucky Mountaineer.

The instruction book which mentions 13/16 of an inch dimensions should have read "between the lower side of the clutch

shift and the clutch drive plate." The clutch shift is shown at Fig. 229 and by studying this and also the drive plate of



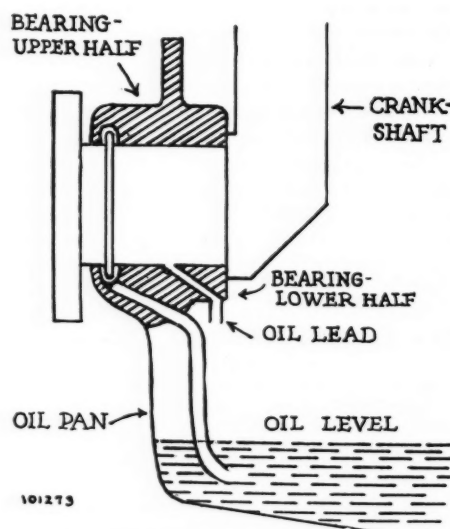
The Ford Clutch

the clutch you will understand that when the clutch spring is compressed to about 2 inches it will give the distance of 11/16 at the points mentioned in your other instruction book.

Curing Rear Mains That Leak Oil

Q.—We have an Oakland six 1920 model which gives trouble, due to a stream of oil running out of the rear end of the rear main bearing. The return hole through the bearing cap is open and we have cleaned out the holes in the crankshaft and cleaned out all the oil lines, but this does no good. Can you suggest a remedy. —Hoosier Repairman.

We are showing a sketch of a method which has been found to be effectual on one car and should prove effectual on the car in question. At the rear of the rear main bearing both in the upper half and in the cap a groove is cut. On most



Method of keeping oil out of the flywheel housing

engines a groove of this sort already exists and a raised portion of the crankshaft known as the oil slinger rotates in this groove. The trick in making this effectual, however, is to connect from the bottom of this groove a pipe which will run to a point below the oil level in the crankcase. Capillary action causes the oil to drain back into the crankcase more effectively than would ordinarily be the case.

What Should the Oil Pressure Be?

Q.—At the Myers Garage we have recently become engaged in a disagreement. The question is about the oil pressure in the engine of a Buick 24-44 or Master Six roadster. One opinion is that something should be done when the oil pressure gets down to 3 or 4 or 5 or 6 pounds when driving at a speed of 40 miles an hour. The other party contends that as long as any pressure is showing it indicates the pump is working and that there is nothing to worry about. The bearings are tight and the pressure does not go down until the oil gets hot. Who is right? Would it do any good to use heavier oil? These heavier oils keep the pressure up to 9 and 10 pounds.—E. W. Clark, Pawnee, Okla.

The pressure should be about 3/4 pound for each mile per hour. That is at 40 miles per hour you should have from 25 to 30 pounds pressure on the gage. Depending on the mileage which the car has gone it is possible that the pump gears need replacing. Wear at the teeth or side play will allow leakage of oil so that the pump does not operate efficiently. This is indicated when you say that it works fairly well with heavier oil, but does not work when the oil is light or when it becomes thinned out. You say that the bearings all fit properly, but unless you have tested these by forcing oil through the system you are not sure. The pump should be disconnected and oil forced through the system to see how it comes from the various bearings.

If it drips slowly from each one, the fit is correct, but if there is a flood of oil from any one bearing it indicates that that one is improperly fitted, and also accounts for the loss of pressure. We assume of course, that you have checked to see that the oil screen is clean. The party contending that any pressure at all shows the system to be O. K. is thinking of the type of engine where a pump forces oil into a series of troughs and connecting rods dip into these troughs. With this circulating splash system it is correct that any pressure on the gage shows that the pump is functioning. In a pressure lubrication system however, where oil goes to the main bearings and then through the crankshaft to the connecting rod bearings, it is necessary to have a higher pressure.

Clearing Up Electrical Trouble

EDITED BY A. H. PACKER



Test Bench a Necessity in Electrical Work

Q—We wish to build a complete electrical testing bench for garage use for testing automobile starting motors, generators, magnetos, lights, spark plugs, ammeters and coils.—Geo. H. Ainge Tool, Die & Machine Works, Springfield, Ohio.

Most garages find that they can utilize their time to better advantage in developing their own business rather than in trying to build specialized equipment of this nature. However, for those who wish to build up testing equipment we are publishing a diagram which takes care of generators either 6 or 12 volt. It would be necessary to purchase a suitable driving motor together with vise for holding the generator.

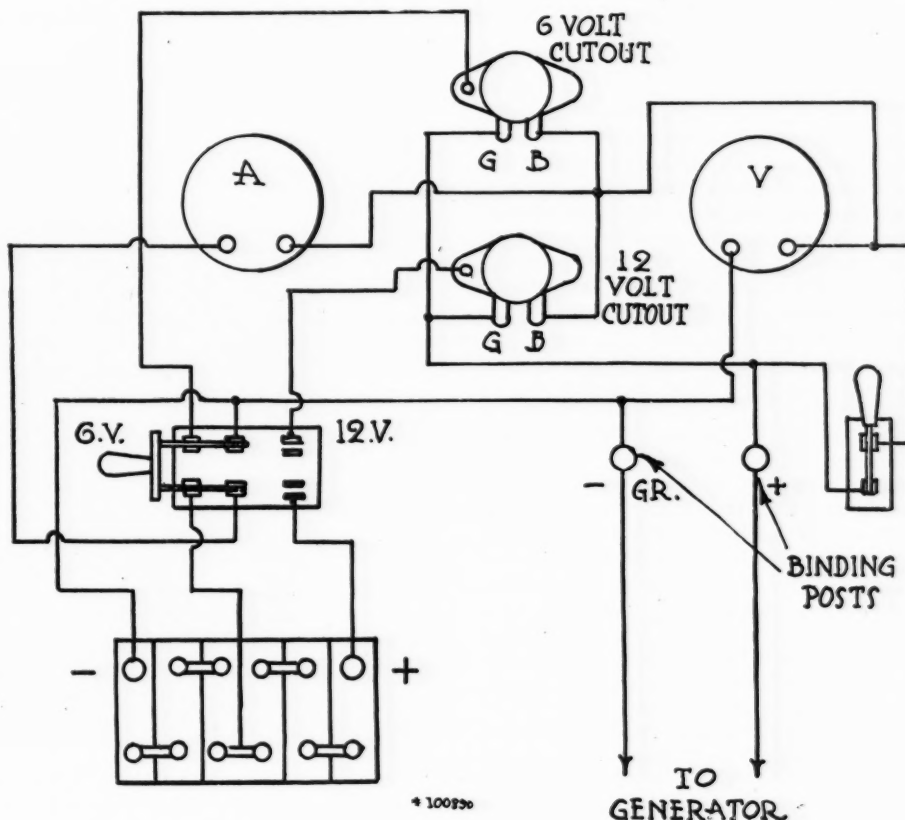
Can Be Mounted on Vertical Board

All of the equipment shown can be mounted on a vertical board at the back of the test bench. Only two switches are used, a two-pole double-throw and a single-pole single-throw, as indicated. Instruments that are suitable include an ammeter, which should be a 30-0-30, and a voltmeter, which can be a 0-15 meter. A 6-volt and a 12-volt cutout also are required. When you have a generator which does not have a cutout on it you leave the switch at the right open. Then you throw the double-pole switch to the left for a 6-volt generator and to the right for a 12-volt generator. This not only connects up the battery properly but also connects the proper cutout into the circuit. The two wires shown connected to the binding post are used to connect to the generator.

These wires would go on the two terminals on the generator, or if you have a grounded generator with only one terminal, then one wire goes to this terminal and the other wire goes to the frame of the generator. If the generator already has a cutout mounted on it or in it, you do not need the cutout on your test bench. You then close the single-pole switch at the right, which shorts these out. If you want battery current to test with, you merely close the single-pole switch at the right and use the two wires that are on the binding post. Using these wires for checking an ignition coil, for example, you will have the ammeter reading the amount of current that the coil takes.

The voltmeter is so connected that it will be reading about 6 volts or 12 volts, depending on which way the left-hand switch is thrown. As shown on the diagram the negative binding post is indicated as the ground terminal. This is all right for testing any generator.

Some generators, however, when installed on the car have the positive instead of the negative grounded. As a precaution, therefore, it is well to close the cutout points once by hand after the



Circuits for testing 6 or 12-volt generators

generator has been installed on the car. On the other hand, if you happen to know that a certain generator is used on a car where the positive terminal is grounded you can of course reverse the leads on your test bench, connecting the positive terminal to ground and the negative terminal to the live terminal on the generator.

If only occasional work is done a starting motor test may be dispensed with. If the armature turns freely and the brushes and commutator are in good condition and the starting motor will rapidly attain a very high speed it is quite likely to be O. K. Many test benches, however, provide for measuring the current and pounds pull on a lock torque test.

When it comes to magnetos the best test is to give the coupling a quick turn and see if the magneto fires in the safety gap. If not, it needs more or less work which usually necessitates tearing the magneto down. Spark plugs are tested with any ignition system by opening the plug gap or by putting insulation such as mica between the points to make the spark jump at least $\frac{1}{8}$ in. Coils are tested by connecting with a battery and interrupter so that the connections are the equivalent of the ignition circuit on the car. Ammeters are tested in series with a correct meter.

TESTING BY ELIMINATION—A RELIABLE METHOD

Q.—What would cause the ammeter hand to vibrate on a Dodge Brothers car? The generator has been checked but we are not sure about the brushes. If the wrong third brush is installed in this car would it cause this trouble? D. C. Slick, The East Granite City Garage, Granite City, Ill.

The third brush should be black in color and the two main brushes should be yellowish indicating that they have more copper than carbon. If the brushes are incorrectly installed the main brushes which carry heavy current will have high resistance and the third brush which should have a high resistance will have such a low resistance that it will cause arcing, at the commutator. Whether this would produce vibration of the ammeter hand or not is another question.

We would suggest eliminating the cutout from the circuit by running temporary wiring from the generator to the ammeter and another wire from ammeter to battery, or you could use a separate ammeter and battery on the running board for test purposes. If the combination cutout switch and starting switch is not in good condition it may be that the points are flashing and burning and the cutout armature is vibrating back and forth. If you eliminate the car wiring, you will know whether the trouble is there or in the machine itself.



Motor Age's Flat Rate Forum

EDITED BY B. M. IKERT

Electrical Flat Rates Bring More Shop Profits

"WHAT should I charge to repair a Ford generator?" one MOTOR AGE subscriber wanted to know. Another one asked if there were any flat rates put out like those prepared by some of the automobile manufacturers. It is a burning question, for with flat rates on mechanical overhaul operations sweeping the country, the question naturally arises, "Why can not electrical repairs also be made on a flat rate basis?" The answer is that they can.

Electricians familiar with the general nature of the work to be done can readily establish their own rates to suit prices in their locality. The start can be made with the units on the car most frequently serviced, and with the unknown cars still on a time basis. Then as experience is gained additional jobs on other cars may be added to the list.

Suppose the overhaul of a certain generator takes the average mechanic in a certain town three hours and the customary rate is \$1.25 per hour. Then the average charge would be \$3.75. Sometimes the mechanic working faster might turn out the job in less time, giving the customer better service at a reduced price, while if he worked slower he would give worse service at a higher price; obviously not a fair basis.

On the other hand let us suppose that \$3.75 is established as a fair price on that job and car owners and shop men learn to accept this price as reasonable. What then are the chances of profit? The speedy electrician doing the job in two hours will earn for himself or the shop, \$1.87 instead of \$1.25 per hour and if paid in proportion to the work he does will have a chance to earn more. With an extra incentive he will speed up and develop short cuts so that each job will be more profitable than before.



THINGS THAT HELP FLAT RATE

The contact man is the all important factor in flat rate. He must not only be very familiar with the car or cars in question, but also able to intelligently write the repair order and above all able to meet the general public

Keeping a Flat Rate File

Chicago, Ill.

To the Editor of MOTOR AGE:

I have been saving the flat rate forum. Have you any idea as to how I could file them to readily locate the chart covering any particular car at a moment's notice? I am also interested in the articles on electrical trouble shooting and like to keep those articles separate and read them at leisure.

I tried this. I took two old thick MOTOR AGE copies that had over 260 pages, divided them into 10 pages for each letter of the alphabet and started to file, Buick, page 20, Cadillac, 30, Dodge, 40, etc. Then when I started to cut I found it spoiled the "Clearing up electrical troubles" as they were on the other side. For example, in the September 3, 1925, issue, page 27, electrical troubles are destroyed by cutting out No. 29 MOTOR AGE Flat Rate Forum for Dodge Brothers. Was thinking if No. 29 had been placed on page 24 instead of page 28, it would have been better as the picture pages don't mean anything after the first glance. I want to be able to turn quickly to Chevrolet, Dodge Brothers, etc., in a book on the desk to quote prices for the required operations on any car.—G. I. DeVault.

We quite appreciate the difficulty you are up against in cutting up the various copies of MOTOR AGE to save certain pages.

Perhaps a solution would be to not paste the pages down, but retain them in a loose leaf binder and make an index of the contents on the back of the page, that is, the ones relating to the electrical questions of the Reader's Clearing House, so you could refer to them when necessary. This would give you a flat rate book, which normally would be used as such, but which still would contain the information on other subjects you desired.

MOTOR AGE'S FLAT RATE FORUM

No. 33

FLAT RATES FOR FRANKLIN MISCELLANEOUS ENGINE OPERATIONS

Manufacturer's Official Designation		Charge
10-703	Tune engine	\$ 3.65
10-705	Clean engine	2.20
10-704	Oil change	1.50
10-719	Oil pump. Inspect, adjust and install new gaskets.....	5.54
10-730	Valves. Oil and adjust.....	1.18
10-731	Scrape carbon and kerosene grind valves. (Includes oil change)...	7.71
10-727	Grind valves and clean carbon. (Six cylinders.) Includes tune engine	20.68
10-726	Valves. Grind (free up) and clean carbon. (One cylinder).....	4.56
10-732	Valve walking beam (exhaust). Install new.....	2.66
10-711	Crankshaft and connecting rod bearings. Take up.....	21.55
10-738	Timing chains. Install new. (½ in. pitch).....	13.15
10-737	Timing chain. Adjust .....	.85
10-756	Clutch. Install new. (Brown-Lipe to replace standard series 10 types)	46.10

THE MARKET'S NEW OFFERINGS

Accessories—Equipment—Supplies

Keystone Gear Shift Extension Lever

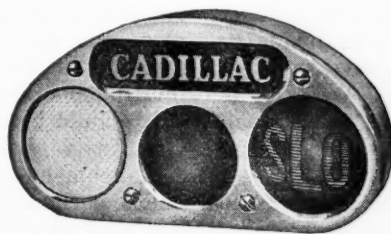
THE Norlipp Co., 568 West Congress Street, Chicago, Ill., recently introduced the Keystone gear shift extension lever. One of its main features is the fact that the ball is self locking so that it cannot be removed. The extension lever is securely locked into position by means of a set screw, making a firm joint. In the groove in the thread of the lever ball a ratchet spring is placed so that when the ball is screwed on it is permanently protected from theft. The extension lever is nickel plated and made to fit gear shifting levers of all cars in the various types or groups. A chart is supplied indicating by number the type of extension lever used on the desired car. Price, without ball, \$1. With 1½ in. onyx ball, \$2.75. With 1¾ in. onyx ball, \$3.



Keystone Gear Shift
and Extension Lever
with Onyx Ball

Glare-Sun Roller Shade

CLARMAX Manufacturing Company, 5353-57 N. Western Avenue, Chicago, offers the trade what it calls the Glare-Sun Roller Shade which shields the driver and other occupants of the car from the glare of sun, bright lights or snow. The Glare-Sun Roller Shade is installed similarly to a window shade and operates on the same principle. It is said to be adjustable to every angle to satisfy the eyes. A rubber suction holder at the bottom prevents the shade from flapping. This device is made in a standard size of 12 in. in green and is priced, complete with fittings, at \$2.75. Special sizes are made to order at an extra charge of 40 cents per inch.



Four Features in Beacon Lamp

Cut shown above

COMBINING the features of a stop signal, tail light, reverse light and a car monogram the Beacon Standard No. 650 has been placed on the market by the Beacon Motor Lamp Manufacturing Company, 1243 West Third Street, Cleveland, Ohio. The left hand light is white, the middle light red and the right hand light is green. Centered over the top is the monogram unit. List price, \$5.50.

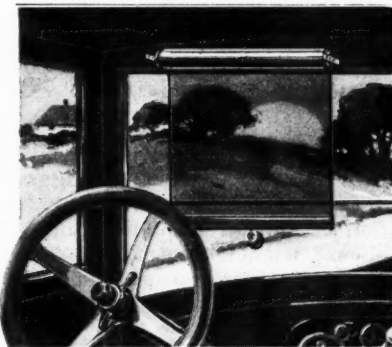
Let the Customer Know What It Is

The accessory store's shelves, counters and cases display a wide variety of items. The proprietor of the store or the experienced clerk knows all of these items by sight, just what they are and what they are for.

But what about the average customer who wanders through the store inspecting the stock?

His knowledge of the accessory stock is limited. While he might have developed interest in some device through the reading of advertisements or comment of other motorists there is a big chance he would not recognize the appliance in the store's display case should he run across it.

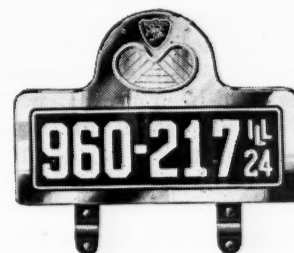
An identification label of some sort on the item would facilitate matters for him immensely and maybe lead to a sale which otherwise would be lost. If the article does not easily identify itself—label it.



Glare Sun Roller Shade

The Platelite

AS suggested by its name the Platelite is a road light and license plate holder combined. It is made of heavy compressed aluminum, the lower portion or plate holder being a solid piece and the upper section containing the lighting unit which is shaped like a kidney to cover the blinding glare of the bulb and obtain other benefits. This lamp, it is said, will project a beam of light spreading over the entire road for a distance of from 200 to 300 feet, waist high, and below the line of vision of the on-coming driver. The construction of the reflector and specially designed lens throws the light not only on the road but on roadside ditches and turns. The Platelite retails for \$7.50 and is made by the American Automatic Devices Co., Chicago.



The Platelite

Sport Model French Trumpet Horn

WHILE the Sport Model French Trumpet Horn can be used on all models of open and closed cars it is designed particularly for use on sport types. It is made of brass and entirely nickel



Sport Model French Trumpet Horn

plated, with a very high polish and Duco finish. Colorings are green, grey, blue, brown, orange and maroon. A black enamel bracket is furnished. This horn will make a shrill trumpet-like sound with a slight pressure on the bulb. It is made by the Mid-City Auto Devices Company, 1430 South Michigan Avenue, Chicago, and lists at \$4.

Descriptions of Additional Accessory Items Will Be Found on the Following Page.

Clean Surroundings Attract Business

(Continued from page 15)

If it is good business to present an attractive inside picture it follows that the substance in which the jewel is set should be made to do its full part as background.

Slick up to the best of your ability on the inside in preparation for winter business—and then give the best of your slicking up talents to the outside. While it is wrong to have "All Front and No Back" the "back's" full efficiency is dependent upon the efficiency of the front and outside surroundings.

In slicking up the front begin with the outside surroundings. If there are any unsightly rubbish piles or other eyesores affecting the picture—start out by removing them. The dealer establishment with an adjacent vacant lot has an asset in this lot now and then but the danger is that the vacant lot will be permitted to harbor hideous sights that do anything but strengthen the show room's setting. Rusted wrecks of used cars on the lots amount to just so much actual sales resistance.

Clean up the lot, if one is there, and clean up generally as a starter. Take a tip from the practice of large filling station operators. They have the idea when it comes to outside slick-up. Only a few days ago a filling station in a small city was observed which was against a neat latticed background, the lattices being painted white and trimmed in green. The purpose of the lattice work was to hide ugly views over which the station has no other control. The entire area between the lattices and the street had been covered with white crushed rock—not that cars would use all this space—but to further the neat and clean appearance of the station and its surroundings.

Filling stations, we might say, do business entirely with a "front" with no "back" to worry about, and the result is they have gotten the outside slick-up down to an art. They know the selling influence of the slicked-up establishment. They know the patron would prefer to go to a tidy, attractive stand for his gasoline than to one of the other sort.

The same sort of sales psychology applies to the prospective automobile buyer, or the prospective buyer of accessories or maintenance. In fact, human beings in this particular are very much alike. In trading of any sort we find ourselves naturally gravitated toward the more inviting business institutions.

It should be needless to remark that clean windows are vital in a slick-up program, yet there are automotive establishments that neglect their windows more or less. Shops perhaps are the worst offenders regardless of the fact that clean windows will let in more needed daylight and more business. Cleanliness on the noticeable exterior of the shop should prevail as well as on the interior, especially where there are rear and side drives along which shops often permit accumulations of junk and other unsightly things.

Out in front there may be some signs to think about. Signs that are hopeless eyesores should come down. Others should be slicked up, possibly treated with fresh paint. If electric, dead bulbs should be replaced. A sign is a business help but the slicked up sign helps business more than the one which looks ancient or mangy.

And speaking of paint there are many places where it might help the appearance of the outside and outside surroundings. Maybe the front of the building needs a freshening up with paint. There might be gas pumps, greasing racks or other service appliances on the sidewalk which paint would help. The next door neighbor often enters into the problem and it might help matters if he could be induced to do some touching up with paint and general slicking up.

Without a doubt the "slicked up" front will help get business. But the work of front slick up is not complete without general slicking up on the outside. It is well to remember that the prospective buyer is more likely to enter the store with slicked up front and slicked up outside surroundings than the store of the other type.

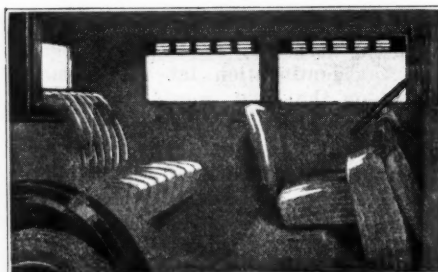
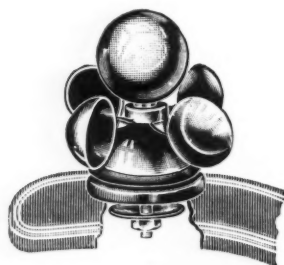
THE MARKET'S NEW OFFERINGS

(Continued from page 29)

The New Rotascope

Cut shown below

THE Wiggler Co., of Buffalo, N. Y., has put on the market a new type of rotascope. Originally the rotascope was designed to fit on the radiator cap. It was found that this interfered with temperature indicating devices so in order to remove this objection the rotascope has been adjusted so it can be put on the fender if preferred. The device consists of four cup-shaped disks, finished with bright red enamel and highly polished nickel. When the car is moving the breeze sets the disks in motion producing a



Common Sense Ventilator

colorful effect. Weight, about one pound. List price, \$2.50.

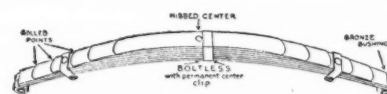
Common-Sense Window Ventilator

ANNOUNCEMENT was recently made by Ackerman-Blaesser-Fezzey, Inc., Detroit, of the introduction of the Common-Sense Window Ventilator for closed cars. This ventilator, made of sheet steel and treated to prevent rusting, fits into the upper portion of the window. As it is placed outside the glass, raising or lowering the window is not interfered

with. Louvres or air holes are spaced to offer maximum ventilation without permitting rain or wind to enter the car. Installation can be accomplished by the owner by removing the three strips that hold the glass in place, inserting the ventilator and replacing the strips. Stock sizes are made for all standard closed cars. Price, \$1.75 per pair.

Perfection Front Springs for Fords

FEATHERED edges, bronze bushed eyes which prevent freezing of shackle bolts, boltless center and quick and easy installation are some of the points offered for the Perfection Spring for the front of Ford cars, manufactured by the Eaton Axle & Spring Company, Cleveland, O. The leaves of this boltless spring are held in place by steel straps at the center. Deliveries are offered in seven, eight and nine plate sizes.



Perfection Ford Spring

EDITORIAL

Facts About Time Payments

A VALUABLE service will be rendered the automotive industry by the survey of credit terms being made by the National Association of Finance Companies. There has been too much wildcatting among finance companies. We have gone through a period of cheap money and hundreds of new companies have started in the business of financing automobile sales. In their eagerness to get a large volume of business quickly many of these companies have offered extremely liberal terms.

The National Association of Finance Companies now proposes to classify and sum up the experiences of the various companies with terms of varying liberality. The result should be a reliable indication of basis upon which the business can be conducted safely and soundly.

It is very much to the interest of the dealer that finance terms be stabilized on a sound basis. It doesn't help the dealer to sell cars on what is equivalent to a rental basis. Cars that do not stay sold return to plague the dealer even though the repossession may be by a third party and not by himself. The dealer's interest is in seeing that cars are sold on a basis that will keep them sold. Common sense, if given a chance to exercise itself, will dictate these terms.

Flat rate will knock L out of the flat purse.

Salesmanship in the Service Station

ENTIRELY too many service shops are lacking in either the inclination or ability to properly sell their services. There recently came to our attention an instance in which complete lack of salesmanship proved costly to a dealer's service department. A customer whose car had done a good many thousands of miles in the two years it had been out took it in to have the engine put in good condition. He was prompted to do this by the fact that an annoying piston slap had developed. His chief object was to have the noise removed because generally the engine was still operating in a creditable manner.

The service foreman dismantled the block and said he thought two new pistons would cure the trouble. The owner told him to go ahead. After this work had been done and the engine reassembled the service foreman found the slap still existed. He took the engine down again and renewed the other two pistons and rings. The owner was perfectly willing to pay for the complete new set of parts and their installation, but not the extra operation of taking off and replacing the cylinder head and pan the second time.

But that was not the end of the trouble. There was still a bad slap in the engine and the car came back. This time the trouble was traced to worn valve stems. It was necessary to install a complete new set of valves, but here again

the service department could not properly charge for the operation of removing and replacing cylinder head and grinding in the valves, for the old valves had been ground and charged for the first time the head was off. The owner was willing to pay for the valves and the operation of installing them minus the grinding.

The moral here is that the service foreman in the first place should have sold the owner on the idea of fitting a complete new set of pistons, rings, pins, valves, and other necessary parts. But actually no effort was made at any time to sell a complete job. The effort rather was to see how little work the shop could get by with. As it turned out the owner paid for a rather complete engine overhaul, including parts, but the shop lost heavily on the labor end of the job through having to do so much duplicate work for which it could not properly charge.

The owner in this case would readily have authorized the complete job for which he ultimately paid and the shop would have saved money, if the least bit of salesmanship had been used.

Shut off profit and shut up shop.

Keeping Busy This Winter

THE automotive jobbers of New York state, 100 per cent strong, have decided to carry on a special campaign this fall and winter for the purpose of helping car dealers and garages keep their shops busy during a period when there is usually a normal decline. The movement is a worthy one and should be followed in other sections of the country.

One phase of the campaign will be the encouragement of dealers in the direction of having all used cars on hand fixed up before they are offered for sale. It is believed that this fixing up will make these vehicles more marketable at better prices and will provide the service shops with a great deal of profitable work and furnish an outlet for a great amount of parts and supplies.

At the same time the practice of reconditioning used cars before offering them to the public helps to hold the good will of the car buyers and is a good thing for the whole industry.

It pays to be a preferred customer.

Let's Stay Slicked Up

THE slicked up store is such a satisfaction to the owner and such an attraction to customers that it would pay to keep it that way all the time. And it's not much of a job after it has been done once. A little attention daily is all that is necessary. But it must not be neglected. Only a few days of neglect will allow the slickest place to run down and become shabby and then it is a real job to bring it back. A few minutes a day will keep the store slicked up.

Trade Outlook Is Highly Favorable

Good Tone to New Car Sales Almost Everywhere in Country

Used Vehicle Movement Satisfactory on Average but Spottiness Marks Time Selling

NEW YORK, Sept. 26.—Generally excellent new car sales, reasonably satisfactory movement of used cars in most parts of the country and a spotty situation as regards time payments and repossessions—that is the picture of the automotive retail condition as the industry enters the Fall season.

Reports from every section of the country show that new car sales have been very good almost everywhere, September totals exceeding those of August in many cases and falling materially below August in practically none. Some areas had a marked slowing up in new cars business during the first week or ten days of September, but heavy buying in the middle of the month compensated for the early slump. Coupled with these very favorable records of September business come highly optimistic and apparently well found opinions that October also will show results which will compare favorably with those of August and September.

Dealers Press Factories

Used car stocks seem to be in pretty good shape all over the country, although reports from Texas and parts of Ohio indicate that the number of used cars in dealers' hands is rising despite reasonably active market in the used vehicles. New cars stocks, of course, are low, with many dealers pressing their factories for deliveries.

The very active new car market and the satisfactory used car situation, when coupled with the decrease in factory schedules which is taking place in a good many cases, combine to make the current automotive outlook highly favorable. The indications are that most factories are not being misled by the size of immediate demands into thinking that this peak pressure from the retail field will continue indefinitely. Consequently, there are strong evidences to indicate a steady balance between production and consumption will be maintained throughout the fall and winter whatever turn the retail sales curve may take.

Spotty Time Sale Situation

Underlying this excellent situation, however, is a somewhat spotty times sales situation.

Telegraphic reports from many correspondents indicate that the credit situation is thoroughly satisfactory or improving. Such statements, for instance, come from Milwaukee, Louisville, Canton, St. Louis, Toledo, and Birmingham. But to offset these favorable reports are others from such centers as Los Angeles, Charlotte, N. C., Phila-

More Mail Routes Motorized

WASHINGTON, Sept. 26.—Motorization of 498 new rural free delivery routes has been announced by the Post Office Department, bringing the total number of mail routes, now covering the United States to 4,228. According to the report of Postmaster General Harry S. New, just issued, on June 30 this year mail was delivered on 45,189 rural routes, as compared with 44,760 on June 30, 1924. Rural mail routes in the United States have an aggregate length of 1,223,391 miles, and serve 6,508,178 families, or 30,351,618 individuals.

delphia, and other centers indicating that repossessions are on the increase.

Paige-Detroit Company Will Cut Funded Debt to Million

DETROIT, Sept. 26.—Directors of the Paige-Detroit Motor Car Company at their meeting Friday, after considering the company's strong cash position and favorable business outlook, decided to anticipate the redemption date of \$500,000 of the company's outstanding serial gold debenture notes by calling for payment Dec. 1, this year, the block of notes which would fall due June 1, 1926.

The company, on Dec. 1, this year, will also retire \$500,000 of the notes coming due at that time. Of the originally authorized issue of \$3,000,000 dated March 1, 1924, and maturing \$500,000 June 1 and December 1 to June 1, 1927, the company already has retired \$1,000,000 of notes as they fell due.

Under the terms of the note issue they are callable by the company on any interest date at 108 and accrued interest before June 1, 1925, at 102 and interest before June 1, 1926, and at 101 and interest before June 1, 1927.

"Our company has had a very successful year, and business is continuing in record volume," says President H. M. Jewett. "The company is in an exceptionally strong cash position and the directors decided it would be wise to call the notes maturing in June next year, for payment with those coming due December 1, this year. This will reduce the company's funded indebtedness to \$1,000,000, no part of which will fall due until December 1, 1926.

DICK IS SERVICE MANAGER

FLINT, Mich., Sept. 26.—R. H. Mulch, vice-president and general manager of the Flint Motor Company, announces the appointment of Joseph R. Dick, as service manager. Mr. Dick has had wide experience in service work with several other prominent manufacturers of automobiles.

4-Cylinder Willys-Knight To Have Four Wheel Brakes

Equipment Will Be Similar to That on Six and at No Added Cost

TOLEDO, Sept. 26.—Four wheel brakes similar in operation and construction to those employed on the six cylinder model announced Jan. 1, 1925, will be fitted on the four cylinder Willys-Knight cars effective Oct. 1, it was announced today by Willys-Overland, Inc.

All models on the smaller chassis will be regularly equipped with the new brakes and included in the present list price, there being no extra charge for the front wheel brakes.

On the Willys-Knight cars, the internal front wheel brakes are different from any design employed on domestic cars at this time. From the brake pedal, pressure is transmitted by a rod connected to a lever which is pivoted on a bracket attached to the front axle. Pull rods from the floating equalizer in the bracket are connected with universal ball jointed yokes, the latter carrying rollers in the brakes proper in the front wheels.

The operating rollers are placed in wedge shaped spaces formed by the curved portion at the lower ends of the two cast aluminum brake shoes. When the brakes are applied, the rollers are drawn in toward the center of the front axle thus forcing the shoes outward and providing the necessary braking effort on the drums.

RICKENBACKER TO EXPAND

NEW YORK, Sept. 26.—A minority interest in the Rickenbacker Motor Co., of Detroit, has been purchased by Noyes & Jackson, members of the New York and Chicago Stock Exchanges, and W. C. Jackson, of Chicago, and A. G. Boesel, of New York, are to be added to the board of directors. The seven present directors are department heads in the Rickenbacker organization, and heretofore no banking interests have been represented there. The company announces that this step will mark the beginning of a rapid expansion program, the first step of which will be the amalgamation of a body concern with the Rickenbacker Motor Co.

NORTH EAST HOLDS MEETING

ROCHESTER, N. Y., Sept. 28.—North East Service, Inc., opened its annual branch managers' convention here today at the general offices of North East Service, Inc., in Rochester. A special feature was the attendance of the managers of the North East foreign branches including those of Toronto, London and Paris offices. Further development of the North East service policy to meet the increasing demands will be planned at this time.

Meeting at N. A. C. C. Office Starts Fight on War Tax

Representatives of Every Branch of Industry Confer to Plan Campaign

WASHINGTON, Sept. 26.—Representatives of all automotive interests marshalled their forces here this week at a meeting held in the offices of the National Automobile Chamber of Commerce for the purpose of launching a winning fight in the Sixty-ninth Congress for the elimination of all war excise taxes, which include those on motor vehicles, parts, tires and accessories.

The representatives found themselves in perfect unanimity in the belief there should be no compromise but that all the taxes which have so long been a drag on the industry should be speedily killed. Decision was reached that each automotive group should work out its own line of action in its own way with specific attention to the particular phases affecting it.

Those in attendance at the meeting reported that they are gratified to learn through conversations within the past few months with members of Congress that there is a very general appreciation on the latter's part of the justice of the demands of the automotive industry. It was the consensus that the arguments for the elimination of the war taxes this winter will get a more receptive hearing than they have in the past.

It was reported at the meeting that representatives of all of the automotive groups have requested time when the house ways and means committee meets next month which no doubt will be granted.

Foreclosure Suit is Brought Against Lexington Motor Co.

INDIANAPOLIS, Sept. 26.—Suit to foreclose a \$1,500,000 mortgage against the property of the Lexington Motor Company of Connersville has been filed here in the Federal Court by the Central Union Trust Company of New York, as trustees for the holders of first mortgage sinking fund gold bonds of the company. In the complaint the trust company sets out that interest payments due last year and this year on the bonds have not been met, an amount which runs to \$56,250 for each six month period since March, 1924, when the first semi-annual payment was due.

In Connersville another foreclosure suit was filed against the Ansted Engineering Company which formerly made the motors for the Lexington car. This suit is to foreclose a mortgage of \$1,000,000 on Ansted Engineering Company property which was originally held by the Lexington Company to secure repayment of ten promissory notes given by the engineering company to the Lexington concern. Later this mortgage was assigned by Lexington to the Central Union Trust Company at the time the

Lexington company negotiated its mortgage to the trust company.

The Lexington Company since April, 1924, has operated under a receiver appointed by the Federal Court at the time the interests first got into serious difficulty. Receiver William P. Herod has been operating the plant on a small production schedule. The Ansted Company is in the hands of Receivers Hyatt L. Frost of Connersville and Arthur Dixon of this city. It is understood here that one possible outcome of the suit will be steps toward a reorganization, though it also is understood that some previous attempts to reorganize the interests have so far failed of success.

A. H. Rosenberg Heads Central Finance Credit Association

CHICAGO, Sept. 26.—A. H. Rosenberg, vice-president of the Motor Car Securities Corp., was elected president of the Central Automobile Finance Credit Association, with headquarters in Chicago, at the annual meeting. The Central organization is an association of auto-



A. H. Rosenberg

mobile finance concerns, whose members write an aggregate of more than \$1,000,000,000 a year. It is affiliated with the National Association of Finance Companies.

Other officers elected were S. J. Steinberg, vice-president; A. J. Deutschman, secretary; John B. Perlee, treasurer; J. L. Nau, R. A. MacDonald, H. M. Lilly and John H. Little, directors.

Mr. Rosenberg was a member of the board of directors before being elected to the presidency.

LANE TOURS WEST COAST

OAKLAND, Cal., Sept. 26.—Ralph S. Lane, president, and D. M. Sweeney, field supervisor of United Motors Service, are on tour of the Pacific Slope, having spent several days in September in Oakland. Expansion of service stations throughout the country is being arranged, according to Lane.

S. A. E. and N. A. C. C. to Hold Joint Meeting Oct. 9-10

Chicago Convention Will Stress Subject of "Preventive Service" in Operation

CHICAGO, Sept. 26.—Trouble prevention will be the keynote of the Society of Automotive Engineers and National Automobile Chamber of Commerce joint meeting, Hotel La Salle, Chicago, November 9-10.

The joint meeting with the Society of Automotive Engineers, which is the third annual event of this kind, will have much to do with what is sometimes called "preventive service," directing attention to the precautions that should be taken and the things that should be done to prolong satisfactory car operation and defer inevitable repairs that wear eventually entails.

There will be morning and afternoon sessions on each of the two days, the first and last being in charge of the N. A. C. C. Service Division. The S. A. E. will be responsible for the Monday afternoon and Tuesday morning sessions.

The Automotive Equipment Association show will be held that week at the Coliseum, and a conference with members of that association and the factory service managers will be held Wednesday morning following the official service convention.

Rochester Business Is Good In All Lines During Month

ROCHESTER, N. Y., Oct. 1.—Business in the automotive industry in Rochester and vicinity continued to hold good during the past month and prospects for the next 30 days point to a slight increase in all lines. The new car situation is especially good with practically all dealers reporting more orders than they have cars to fill.

The used car business is holding up well but this end of the business is expected to fall off during the current month. Stocks of new cars are small while the used car stocks are reported as not abnormally large for this time of the year.

General business conditions vary, some sections of the territory being prosperous while in others there is considerable unemployment. On the whole however, the situation is a healthy one for the automotive trades. Accessories, tires, trucks, replacement parts and electrical equipment are all in good shape with bright prospects for the next 30 days.

MICHIGAN ENGINEERS TO MEET

DETROIT, Sept. 26.—The Michigan Engineering Society has arranged its annual convention to take place in Grand Rapids October 28 and 29. The dates were set to enable the members to attend the first annual Good Road Show of the Michigan Association of Road Commissioners and Engineers.

Kissel Adds Three New Features to All Models

Oil Purifier, Air Cleanser and "Gas-co-lator" Now Standard on Both Sixes and Eights

HARTFORD, Wis., Sept. 26.—The Kissel Motor Car Company, Hartford, Wis., announces as standard equipment on all models, three new features: dual oil purifying system, air cleanser and gasoline purifier.

The most important of these is the adoption of the dual oil purifying system which was added only after a series of exhaustive tests extending over a period of months.

The system has the resemblance of a vacuum tank. It draws contaminated oil from the crankcase and removes dilution, abrasives and sludge, and sends it back on the job cleaned.

The air cleanser has been standard equipment on Kissel Eights for some time, and owing to its successful performance it is now installed on Kissel Sixes as well, making it standard equipment on all models.

The gas purifying system known as the "Gas-co-lator" removes all dirt, grit and water from gasoline, and Kissel engineers claim it will do much in eliminating motor trouble previously caused by impure gasoline finding its way into the carbureter.

The new features are being added at no extra cost on cars now being delivered from the factory and Kissel dealers in all sections are being equipped to install them on previous Kissel models at a nominal charge where owners desire them.

Auburn Production Reported Heaviest in Firm's History

TOLEDO, Sept. 26.—The Auburn Automobile Co., whose plant is located at Auburn, Ind., has reported its largest production in history of the company during the last week.

The production has averaged 50 cars a day for the week, which is 25 per cent increase over any previous seven-day period, according to E. L. Cord, vice-president and general manager.

Unfilled orders continue to increase and there appears to be no immediate prospect of production keeping pace with the demand for the new Auburn models in the opinion of plant officials.

FORD PLANT OPERATING

MILWAUKEE, Sept. 26.—The Milwaukee plant of the Ford Motor Co. is operating at capacity again after a seven-week shutdown necessitated by preparations of introducing the new line of improved models. H. M. Buckley, manager of the Milwaukee branch states that a daily output of 200 cars per month through the fall and winter months is contemplated.

PEERLESS REINCORPORATES

CLEVELAND, Sept. 26.—Formal action was taken Tuesday at Richmond, Va., to transfer the assets of the Peerless Motor Car Company, the operating company which is an Ohio corporation, to the Peerless Truck and Motor Company, the holding company and a Virginia corporation. With this done, the Peerless Motor Car Corporation is to be formed as a successor to the Peerless Truck and Motor Company, which will be dissolved. The new company will be a Virginia corporation but licensed to do business in Ohio.

Exhibitors at A. E. A. Show Have More Space This Year

All But Few of Numbers Already Contracted—Drawings Held in Chicago

CHICAGO, Sept. 26.—Drawings of space for the annual show of the Automotive Equipment Association were held this week in Chicago, with the result that only four small spaces on the main floor were left open for members who did not have their space already contracted.

The show this year will be held in the Coliseum, as usual, November 9 to 14. Every space in the main building, the North Hall and the South Hall, with the exception of the four, is now taken by the manufacturing members of the association and the trade papers. A total of 220 exhibits has been contracted.

Last year there were 229 exhibits, all placed on the main floor of the Coliseum, while this year space requirements were so great that it will take the main floor and both North and South annexes to house the 220 displays.

Exhibitors who require space after the four small sections are contracted, will use the balcony, officials of the show say.

All but 40 of the members of the association have already contracted for their space, thus assuring the association that the exhibition this year will be the greatest thus far held.

NEW CADILLAC DEALERS

DETROIT, Sept. 26.—New dealers appointed by the Cadillac Motor Car Co. include:

Jones Mercantile Company, Canton, Ga.; Roy W. Milligan, Miles City, Mont.; Leo J. Dettling, Ann Arbor, Mich.; Logan Buick Company, Logan, W. Va.; Williamson Motor Company, Williamson, W. Va.; Wilbur Johnson Company, Kokomo, Ind.; F. M. Nelson, Panama City, Fla.; Park Motor Car Company, Lyndhurst, N. J.; Central Louisiana Motor Car Co., Alexandria, La.; Chapman Motor Inc., Plattsburg, N. Y.; N. B. Haney, Ada, Okla.; Spurgin Motor Company, Fairfax, Okla.; Cass Motor Company, Bloomington, Ill.; Wirt-Carter Motor Company, Tucson, Ariz.; Monnett Motor Company, Walla Walla, Wash.; Steuben Motor Company, Corning, N. Y.; W. M. Lofland, Norwalk, O.; DeForest Buick Company, Sharon, Pa.;

September Business Shows Gain Over 1924 in Chicago

Crop Conditions Cause Upturn in Rural Sales — October Expected Good

CHICAGO, Oct. 1.—September in the Chicago automotive trade showed a much greater volume of business than September a year ago. Factory production was sustained at a high level in all the Illinois plants. Distributors and dealers, especially those who are showing new models, or whose product is selling at a lower price, report their September business as good as, if not better than, any other month this year.

Many distributors and dealers started the month slowly, but the last two weeks have shown decided improvement, and a number of them see in October the greatest sales possibilities of the year.

Crop conditions throughout the rural districts in the Chicago trade territory are excellent and a consequent larger volume of rural sales is now appearing and is expected to grow during the coming month.

Some dealers are reporting that delivery is a problem. Delivery of the new Ford models has not started in volume as yet, but the factories are putting forth great efforts to get the new cars on the road as fast as possible.

The used car situation is distinctly favorable with the greater number of dealers entering the fall and winter seasons with the smallest stocks in years. Replacements are good, tires good, and time payments excellent.

Parts and Equipment Men See Big Autumn in South

ATLANTA, Sept. 26.—Stocks carried by the automotive and equipment jobbers in the principal southeastern cities for the fall and early winter trade are reported by salesmen representing the northern manufacturing concerns and larger manufacturers' agents in this territory to be the largest they have been in the past four or five years at this time of year, with virtually all of these jobbers apparently looking forward to one of the most active fall and early winter seasons in the history of the industry in the Southeast.

Both parts and accessory sales the last month have been very active in all parts of the South, and there is every indication, jobbers in Atlanta advise, that they will continue so well into the fall months. The holiday season is expected to be by far the best it has ever been in this district, so far as accessory business is concerned.

This, as stated, is true of a majority of the principal southern cities, information at hand from larger jobbing firms in Atlanta, Jacksonville, Memphis, New Orleans, Nashville, Knoxville and Birmingham.

Survey to Determine Sound Automobile Finance Terms

N. A. F. C. Sends Questionnaire to All Companies Handling Such Paper

CHICAGO, Sept. 26.—An extensive survey is being conducted by the National Association of Finance Companies to determine what are fundamentally sound credit terms in the time payment plan of selling automobiles. To get the facts, C. C. Hanch, general manager of the association, has sent a questionnaire to all companies known to be in the business of financing automobile sales.

At the same time Mr. Hanch announces that the annual meeting of the association will be held in Chicago Nov. 17 and the conclusions from an analysis of the returns of the questionnaire will be made public at that convention. The detailed program of the convention has not been completed, but will be finally arranged at a meeting of the convention committee in Chicago Oct. 6. It is probable that more than one day will be taken for the convention.

Finance companies that answer the questionnaire are assured that no details of their individual businesses will be made public, but only the average facts determined from an analysis of all the returns.

Among the questions asked are:

Average loss per repossessed car which had twelve equal monthly payments.

Average loss per repossessed car which had 16 to 18 equal monthly payments.

Average loss per repossessed car which had balloon note or more than eighteen equal monthly payments.

On new cars, the percentage of repossessions when down payment was one-third of cash price or 30 per cent of time selling price, when down payment was 25 per cent of time selling price, and when down payment was less than 25 per cent of time selling price.

On used cars, percentage of repossessions when down payment was 40 per cent of cash price or 37 per cent of time selling price and when down payment was less than 37 per cent of time selling price.

Percentages of used car paper handled.

Percentage of total used car paper which is handled with recourse.

Percentage of paper calling for more than 12 equal monthly payments.

Percentage of paper with 35 per cent or less down on used cars and with 25 per cent or less down on new cars.

The association management is especially desirous of having complete returns from all companies engaged in automobile financing so that when the average conclusions are made known they will be truly representative of the whole country and will be of value to the industry.

CHRYSLER VISITS FRANCE

DETROIT, Sept. 26.—Walter P. Chrysler, president of the Chrysler Corporation, sailed today for Havre and Paris and before returning to America October

17 will visit Saint-Didier in Paris, distributors of Chrysler cars in France, and the nineteenth International Motor Exhibition organized by the Society of Motor Manufacturers and Traders, Ltd., in connection with the Royal Automobile Club, at the Olympia in London. J. E. Fields, vice-president in charge of sales, and Fred M. Zeder, vice-president in charge of engineering, of the Chrysler Corporation, sailed ahead of Mr. Chrysler but will return with him.

Builds Apartment for Baby Families Only

Walter O. Briggs, president of the Briggs Manufacturing Company, Detroit, one of the world's largest manufacturers of closed automobile bodies, plans the immediate erection of a large, 16-family apartment building to cost \$500,000. It is to be located in Detroit on a frontage of 245 feet on Covington Drive and construction is to start immediately. The singularity of this plan lies in the fact that these thoroughly modern apartments are to be rented only to families who have babies under five years old, the plan designates that this unusual venture is to be operated on a non-profit producing basis for the owner.

ZIMMER IS PROMOTED

NEW YORK, Sept. 26.—L. M. Zimmer has been appointed general sales manager of the Linde Air Products Company, manufacturers of oxygen, and of the welding gas division of the Prest-O-Lite Company, Inc., manufacturers of dissolved acetylene, succeeding L. M. Moyer, who resigned August 1. Mr. Zimmer entered the employ of the Linde Air Products Company nine years ago as a junior salesman and has steadily risen in rank. Most of the time he has represented the company in the Central West, coming to New York early in 1924 to act as assistant general sales manager.

CLYDESDALE RECEIVER NAMED

TOLEDO, Sept. 26.—The Commerce Guardian Trust & Savings Bank has been named receiver for the Clydesdale Motor Truck Co., of Clyde, following filing of a petition here in federal court by the Continental Motors Corporation of West Virginia. Judge John M. Killits also named P. R. Taylor, a local attorney, as special master to hear claims. It is declared in the petition that the company is apparently solvent with assets of \$598,549 and indebtedness considerably less than that amount.

AUTO-LITE DIVIDENDS

TOLEDO, Sept. 26.—The directors of the Electric Auto-Lite Co., have declared the regular \$1.50 quarterly dividend on common stock of the company payable October 1 to holders of record September 21. Several new accounts have been taken on by the company.

Battery Manufacturers Are Enthusiastic at Convention

Steps Taken to Increase Efficiency of Organization — New Members Admitted

NEW YORK, Sept. 26.—Cooperation was the keynote of the meeting held by the National Battery Manufacturers' Association at Hotel Roosevelt. Enthusiasm marked the sessions, four new members were admitted and several other steps taken to increase the efficiency of the organization. About 60 members attended and the convention was the best ever held.

The rating of the Society of Automotive Electrical Engineers was adopted for automobile batteries as standard for the association members. Radio battery ratings were also adopted.

Dan H. Kelly of the U. S. Light and Heat Corp., president of the association, presided. One of the most interesting discussions was that by A. G. Hancock of the Home Insurance Co., who described a new insurance policy for rented and loaned batteries. This policy, offered at a low rate, covers fire, theft, loss and lightning casualty on land or water. Although no official action was taken on this subject, it aroused keen interest among the manufacturers and was offered for their consideration in connection with their own service stations.

The necessity of gathering and formulating statistics for the industry was pointed out by Commissioner O. B. Towne and it was voted to start in a small way to collect statistics on certain agreed upon items, for the purpose of providing a more accurate understanding of the actual condition of stocks on hand, number of batteries manufactured and the number sold.

Alfred Reeves, secretary of the N. A. C. C., discussed the Federal excise tax on automobiles, particularly from the standpoint of the parts and battery manufacturer. Arrangements are being made to have a representative of the association in Washington when this subject comes before the taxation committees of Congress.

These new members were admitted: Westinghouse Electric and Manufacturing Co., Lyons Storage Battery Co., W. F. Price Battery Supply Co. and Pioneer Storage Battery Co.

A committee was appointed to study the matter of creating a credit department and committee chairmen reported.

NORTON RESIGNS FROM G. M.

PONTIAC, Mich., Sept. 26.—S. V. Norton will resign October 1 from the position of service manager of the General Motors Truck Company at Pontiac, Mich., which he has held since 1920. For fifteen years prior to his connection with the Truck Division of General Motors, Mr. Norton was with the B. F. Goodrich Rubber Company, Akron, as manager of truck tire sales, and in other executive capacities. His future plans have not been announced.

All Automotive Lines Show Gains in Texas Territory

Accessory, Parts and Equipment Business Declared Best of Year

DALLAS, Texas, Oct. 1.—All automotive lines were looking up in Texas and parts of Oklahoma, Louisiana, New Mexico and Arizona in September.

Automobile distributors and dealers said sales were above the August mark for new cars while the business in used cars was increasing. Practically all dealers are carrying light stocks and in some instances it was difficult to obtain certain models. Medium priced cars were selling briskly. The lower prices machines were moving in large numbers. Distributors were hustling to keep dealers supplied with these makes.

The accessory, parts and equipment business was the best for the year. The accessory jobbers have had trouble in supplying demands for lighting equipment, lens and reflectors due to operation of new headlight law. Distributors are behind with deliveries and retailers are pushing them for stocks. All automobiles in Texas probably will not be equipped to meet requirements of the law before November 15. The business in these lines was the heaviest in the history of concerns handling them.

Accessory jobbers are putting on new salesmen and automobile concerns are taking on new men to solicit business. Advertising in all lines is persistent and sales campaigns are being pushed energetically.

The tire trade was normal. High prices and necessity for many sizes caused many retailers to carry limited stocks. Taken as a whole, however, the trade was said to be normal with the outlook some better.

SIX WHEEL CO. TO EXPAND

PHILADELPHIA, Sept. 26.—The Six Wheel Co. is preparing to extend its truck building operations, hitherto on a limited scale. The former manufacturing plant of S. S. Emerson, recently acquired by the company, will be available for the truck building, and a new plant will be erected on a five acre site. The Six Wheel Co. is a subsidiary of the American Motor Body Corp., of which Charles M. Schwab is chairman. The corporation has sold its Detroit body plant to the Chrysler Corp., as was announced previously.

TEXAS TITLES GAIN

AUSTIN, Tex., Sept. 26.—Motor vehicle registration in Texas continues to increase at a rate which shows that the automobile and motor truck trade is in a most flourishing condition, notwithstanding the drouth that has caused a crop failure in a big scope of the central and southern parts of the state. From January 1 to September 15 a total of 818,787 motor vehicles were registered. This was about 19,000 more than for the

whole of last year. It is expected that the total registration for 1925 will reach 1,000,000 as there is usually a heavy buying of automobiles and motor trucks during October, November and December. The number of automobiles registered up to September 15 was 549,400, motor buses 3,056, tractors 238, motorcycles 2,480, commercial vehicles 78,254, transfers 183,359.

GERMANS HAVE NEW CAR

WASHINGTON, Sept. 26.—The Automotive Division of the Department of Commerce learns by cable that the German firm of Schmidt and Benzdorf G. m. b. H., of Mannheim Baden, Germany, has introduced into the German market a small car named "Mops." This machine is of a three-wheel design and is equipped with a two cylinder four stroke valve in head motor with three speeds forward and one reverse. At this time the car is only produced in one model, a single seater, two-passenger car and is priced at 2400 marks including electric starter, storage battery, top, electric lights, clock, speedometer, windshield, tools and an extra wheel with tire. In view of the low price for this machine it is believed that a good demand will be created.

Sparks-Withington Adds 50 Cents to Extra Dividend

CLEVELAND, Sept. 26.—An indication of the prosperity enjoyed by the automobile accessory industry in this city is given in the eight months' report of the Sparks-Withington Co., manufacturers of Spartan horns and other auto accessories. Directors have increased the extra dividend from 50 cents to \$1 a share.

This will make \$5.25 that the company has paid this year; \$1 in January; \$1.25 each in April and July and \$1.75 to be paid October 1 to stockholders of record on September 22.

Earnings for the eight months of the present year that ended August 31 before taxes and dividend, amounted to \$435,988 as compared to \$195,111 in the corresponding period last year. These earnings show that about \$11.40 a share has been earned in the eight months period after allowing for preferred dividends.

The current assets of the company amount to \$1,087,279 while the current liabilities are but \$53,000. The book value of the stock is \$42.50 a share.

FORD RUSHES OUTPUT

DETROIT, Sept. 26.—All efforts at the Ford plants at Highland Park, Ill., Dearborn and River Rouge are being centered in turning out the improved models recently announced by the company. Getting the different models to future owners is the one thing uppermost in the minds of the workers and officials alike. Deliveries are now being made to those who placed their orders with various dealers in the Detroit area and while the number of unfilled orders is the largest in the history of the industry, those at the factory expect no trouble in making deliveries once the assembly line gets at top capacity.

Toledo Plants Continue to Increase Car Production

Employment Shows Gain of 1,014 in Week Bringing Total Above Last Year

TOLEDO, Sept. 26.—Automotive plants in Toledo continue to show an upturn in business with a gain of 1,014 employees in the last week for a total of 25,547 now at work in 51 plants which report in a weekly census on employment conditions.

This is compared with 16,286 at the same time last year.

The entire year of 1925 promises to be the most evenly balanced in the automobile industry ever experienced in Toledo. Practically all plants have kept going at the same pace throughout the year with only slight trends away from the normal. September will be a big month in automotive production and October may surpass the present month. Willys-Overland has set a schedule of 26,000 cars for October. President John N. Willys says the company can sell all the cars it can turn out in the next 60 days and plans to run at top speed.

Electric power consumption is at a new high peak in Toledo and volume of general business has registered a gain of about 15 per cent over what it was a year ago.

Boston Dealers Report Big Sales Increase in Month

BOSTON, Oct. 1.—Motor car sales in Boston and the outlying sections have taken on a new lease of life with the passing of the vacation season and the salesmen are on the jump with a new impetus now. Distributors say that while the first few days of the month were inactive there has been a noticeable quickening in the last 10 days. Being able to get deliveries now has been a helpful factor after all the announcements the past few weeks.

This seems to be due to the general improvement in trade conditions. The building trade strikes have been settled. There is a better tone to various textile work. The shoe trade shows improvement. The state bank commissioner shows in his report that there are many more millions in the bank than formerly.

Dealers in used cars and accessories say business is fair with indications showing a tendency to go up.

FIAT OUTPUT GAINS

WASHINGTON, Sept. 26.—The Automotive Division of the Commerce Department is informed by consular dispatches from Italy that the Fiat is busier than ever and is declared to be turning out 150 cars daily as compared with an output of 120 reported the latter part of June by the consul in Turin. According to a Turin business weekly, "L'Informazioni Industriali," the rate of production in 1926 is expected to reach 500 cars daily, when work on the new light model 509 really gets under way.

New Car Business Healthy In Salt Lake City District

Used Automobile Stocks Are
Slightly Above Normal—De-
liveries Hinder Some

SALT LAKE CITY, Oct. 1.—There is every reason for optimism here regarding the automobile business in the next few months. Crops are well above normal with ready markets for everything at excellent prices. Added to this is the satisfactory condition of the manufacturing and mining industries of the state while the tourist business, now drawing to a close, has been better than ever before.

Automobile men, with scarcely an exception, describe business right now as being in a healthy condition. The new models and lower prices have stimulated much interest. Used cars are giving a few dealers cause for concern. There are more used cars in the city at this time than there should be. Used cars of the open class unless in good condition are becoming somewhat of a drug on the market owing to the growing popularity of the closed models.

Few dealers seem to be overstocked with new cars, while not a few are finding it difficult to get all they can sell; this being especially true of those having new models or lower prices to offer. An officer of one big firm said today that they were refusing to accept any trade except for good clean merchandise which they could offer at a fair price to the used car buying public, and this policy was keeping their used car stocks down to the lowest possible point. Some firms discontinued trade-ins entirely a short time ago because of large used car stocks on hand.

OAKLAND SPEEDS OUTPUT

PONTIAC, Mich., Sept. 26.—Retail sales of Oakland cars for August were the highest for any month so far this year and 34 per cent greater than the best previous August in the company's history. Production at the Oakland factory is being stepped up to meet the increased demand and during the remaining months of this year will be at peak.

FIFTEEN DRIVERS SIGN

CHARLOTTE, N. C., Sept. 26.—Fifteen automobile race drivers have signed contracts to participate in the November 11, Armistice Day, 250-mile race on the one and one-fourth mile speedway here for a purse of \$10,000, according to a telegram to Osmond Barringer, manager of the speedway, from Fred Wagner, official starter, at Altoona, Pa. These drivers are Jerry Wonderlich, Jim Hill, Leon Duray, "Doc" Shattuc, Bennett Hill, Frank Elliott, Harry Hartz, Phil Shafer, Fred Comer, Bob McDonogh, Earl Cooper, Batten, Hepburn, Devore and Spooner. Wagner's telegram said "I shall obtain contracts from Milton, DePaolo and Kreis upon their return from Italy."

Baby Carriages May Carry Lights

MILWAUKEE, Sept. 26.—Baby carriage "drivers" as prospects for automotive equipment loom up on the horizon following discovery by Milwaukee attorneys that literal interpretation of city ordinances would necessitate headlights and tail lights on baby carriages. The ordinance which opens up the new "market" says among other things:

"No vehicle shall be used on the streets of Milwaukee between the hours of sunset and sunrise unless on such vehicle, there shall be a lighted lamp, lantern or other means of lighting, said lights to be visible at a distance of 200 feet."

Discovery of the potential market came when a motorist nearly ran down a woman pushing a baby carriage in a Milwaukee park. During the altercation which followed the woman advised him to choose his route more carefully while he in turn suggested hanging some lights on the perambulator. Speculating on the necessity for this latter maneuver he consulted his attorney, resulting in discovery of the ordinance quoted.

NEW FLINT BRANCH

CINCINNATI, Sept. 26.—A factory branch has been opened by the Flint Motor Company at 1042 Gilbert avenue and the Flint company will handle its own cars in the Cincinnati territory hereafter. The branch is to be in charge of J. M. Finlayson, as manager with W. E. Kuhn in charge of retail sales and B. J. Thill in charge of service. The Flint distribution here was formerly in the hands of the Herschede Motor Company which recently took over the Peerless agency in this territory.

NEW PEERLESS DEALERS

CLEVELAND, Sept. 26.—New dealers appointed by the Peerless Motor Car Co., include:

Charles H. Fisher, Amsterdam, N. Y., Beverley Hills Peerless Sales, Chicago, West Side Peerless Sales, Chicago, General Sales and Service Company, Chicago Heights, Ill., Automotive Sales Corporation of Connecticut, Hartford, Morton Lown, Kingston, N. Y., H. H. Cassabaum, LaSalle, Ill., and Al Ahart Auto Sales, Waukegan, Ill.

NEW MOON DEALERS

KANSAS CITY, Sept. 26.—Carl L. Zeller, recently appointed zone manager of the Moon Motor Company, with headquarters at Kansas City, has appointed the following new dealers in his territory:

George W. Sweircinsky, Belleville, Kas.; Corder Service Station, Corder, Mo.; James Crook, Chanute, Kas.; M. H. Broschinski, Goodland, Kas.; Hughes Motor Co., Joplin, Mo.; Leonard Motor Co., Leavenworth, Kas.; St. Joseph Track & Tractor Co., St. Joseph, Mo.; C. S. Rarick, Lawrence, Kas.; Hodgins & Geis, Wichita, Kas.; Southwest Motor Co., Springfield, Mo.

Survey Shows Automobile Driving Cost 5.85 Cents Mile

Street Car and Bus Patrons Pay
Slightly Less—Taxis Much
Higher

WASHINGTON, Sept. 26.—The cost of driving a private automobile, assuming an average load of 1.9 passengers per vehicle is estimated here as 5.85 cents per passenger mile. It is further shown that regular street car riders pay the street car companies 2.44 cents for every mile they travel; regular bus patrons pay 3.66 cents per passenger mile; while the Washington taxi rate averages 23.9 cents per passenger mile.

These averages represent the day in and day out experience of approximately one-half of the working population of Washington, says Maj. William E. R. Covell, assistant engineer, commissioner of the Public Utilities Commission, under whose supervision the traffic and transportation survey has been made in the national capital by McClellan and Junkersfeld, Inc., New York, at the expense of the North American Company.

The extent to which Washington automobile owners use the streets as all-night garages was brought out during the survey by a careful count made by the police department. On the night of the checkup, no less than 18,000 of the city's 85,000 registered cars were found to have no other roofs than the stars. Police estimate that on ordinary fair nights during the summer months between 25,000 and 30,000 motor vehicles are parked on the pavements.

G. M. LTD. DEALERS MEET

TORONTO, Sept. 26.—At the banquet convention of 350 dealers and distributors of Ontario and eastern Canada of General Motors of Canada Ltd., R. S. McLaughlin, president, stated that General Motors of Canada, Ltd., would shatter its production record this year by building 50,000 motor cars. C. F. Kettering, president of the General Motors Research Corporation, and acknowledged authority on the scientific side of the automobile industry, gave an address. Jack Beaton, general sales manager, presided.

GETS CONTINENTAL PARTS

TORONTO, Sept. 26.—Continental motor parts for all Continental built motors have been made available to service men this month through an arrangement effected by the Hall Gear and Machine Co. Ltd., Toronto. In addition to other standard parts the Toronto Company has secured exclusive distribution of Continental built parts for servicing all makes of Continental motors in the territory east of Winnipeg, Man. At the same time exclusive distribution in the eastern half of Canada, including the Maritime Provinces has been secured for the Timken-Detroit axles, Morse Silent chains, Borg and Beck clutches and Spicer joints.

September Better Than Last Year in Northern California

Dealer Stocks Low and Delivery Presents Problem in Some Makes

SAN FRANCISCO, Oct. 1.—Sales in central and northern California and Nevada for the first week in September showed a slight drop from those of August, but picked up thereafter and the remaining three weeks of the month showed an increase of approximately 22 per cent over those of September, 1924. Early rains, receipts and distributions of considerable sums of money for the fruit crops, and the growing conviction in the mind of the public that there will be no more price-reductions prior to the New Year, lowered the sales resistance materially in this territory, all of which is tributary to San Francisco.

Dealer stocks are low, and there has been some delay in getting cars in some of the lower-priced models. This has led to a movement among the dealers for the establishment of co-operative warehouses, in which several dealers, merchandising cars of about the same price, could combine to reduce storage charges.

Equipment dealers have had a better month in September than any previous similar period since 1922, owing to the large number of old cars rebuilt and retained by their owners, during August and the earlier part of September, before the majority of the price cuts on new cars went into effect.

Used-car dealers are complaining that the recent price reductions have seriously cut into their business, and a number of the smaller dealers in second-hand cars only are closing out their stocks, or combining with the larger dealers.

Trucks are moving slowly in the smaller towns and in the agricultural districts, but are about holding their own in the cities.

SMILEY MANAGES BRANCH

FORT DODGE, La., Sept. 26.—Bert Smiley, former electrical shop proprietor here, is moving to Los Angeles, where he will establish a branch of the American Gear Company, handlers of gear replacement parts for all models of cars. The company has 14 branches and Mr. Smiley is becoming financially interested in the concern as well as general manager of the Los Angeles branch.

Three New Buildings Will Be Added to Overland Plant

TOLEDO, Sept. 26.—Preparing for a big increase in production next spring the Willys Overland Company here is now going forward with its improvement plan which includes the building of a new forge shop, new heat treating plant, and warehouse now under construction. The program will involve between \$2,000,000 and \$3,000,000.

The forge shop will be 750 by 75 feet and will be erected at the rear of the Kinsey Manufacturing Department. The heat treating plant will be 570 by 75 feet. The power plant will be completely remodeled with new 500 horsepower boiler capacity and modern stoker equipment.

Plans for the structures are being prepared by the engineering department of the company and will be in the hands of contractors in a few days. Necessary pilings for some of the building footings are being put in by the plant construction department. There are nearly 12,000 men at work in the plant and additions are expected to be made to keep production at a high level during the rest of the month.

NEW GARDNER DEALERS

ST. LOUIS, Sept. 19.—Gardner Motor Co., Inc., has added the following dealers to its organization:

C-S Motor Sales Co., Buffalo, N. Y., H. W. Nicholson, East Whittier, Cal., L. D. Powell, Racine, Wis., W. J. Dunker Co., Ludell, Kas.

Conservative Trading Marks Des Moines Used Car Sales

Accessories, Replacements and Radio Sell Better in September Than Any Month

DES MOINES, Oct. 1.—New car business has been slower during the last two weeks of September. It is doubtful if the car registrations for September will equal the new car sales for the corresponding month of last year. Three conditions are held responsible for the poor showing of the last thirty days. The usual seasonal decline in business has affected sales as has the approach of the fourth quarter for registrations.

It is pointed out that many prospective buyers are waiting to take advantage of the decreased registration fee which is effective October 1. The third reason given for the fewer sales during September is that Ford dealers have been able to make but few deliveries.

Used cars are moving more slowly. Dealer stocks are low and conservative trading prevails. Dealers are determined to enter the winter season with a minimum of used cars on hand.

General line jobbers are reporting excellent business in all lines. For the jobber of accessories, equipment supplies and radio, September was the best month of the year. Due to a lack of anticipation on the part of dealers, jobbers are having difficulty in filling orders in some lines. This is especially true on radio and the shortage will undoubtedly become more acute before the winter is over. Radio business promises to be better than ever before. The business is already 30 days ahead of last year.

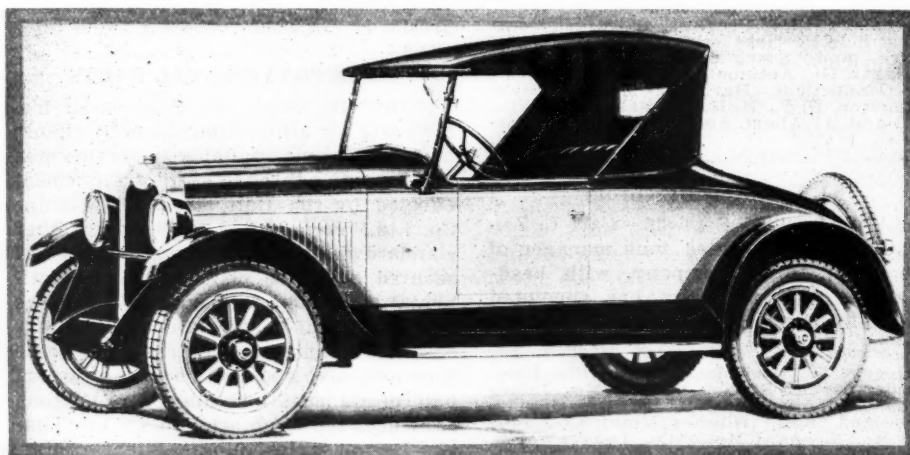
NASH DEALERS EXHIBIT

ST. LOUIS, Sept. 19.—St. Louis County Nash dealers took advantage of the County Fair held recently at Upper Creve Coeur Lake to show the products of the Nash Company. Their exhibit included the Ajax and eight models of the Nash. An Ajax chassis stripped of its body expressly for the exhibit and an Ajax motor, stripped for examination were on view. The dealers taking part in the exhibit were: Briggs-Nash Service Co., Affton, Mo.; Hensiek-Nash, University City; Heintz-Nash, 8100 Ivory Ave., Cardonelet; Nartman's Nash Service, Carondelet; St. Louis-Clayton Auto Co., Clayton, Mo.; Elcher & Son, Nash Co., Wellston, Mo.; Lamb Motor Co., Vanita Park.

MARYLAND TITLES UP

BALTIMORE, Sept. 19.—Maryland's automobile registrations will exceed 240,000 by the end of this year, according to estimates made by the license bureau here. So far 224,970 licenses have been issued as compared with 195,429 during the same period last year. The cars in use at the end of the year, it is estimated will represent one for approximately every six of the 1,449,000 inhabitants in the State. The total of registrations will be almost double what it was in 1920.

New Oakland Roadster



New two-passenger roadster which has been added to Oakland six series, listing at \$975

Leading Rubber Firms Plan To Ban Spring Date Policy

Companies to Ship Only Such Quantities as Can Be Readily Absorbed

AKRON, O., Sept. 26.—A canvass of the leading rubber factories in this district indicate that practically all of them are preparing to abandon the spring dating policy, which in the past has been used to bolster up automobile tire production during the winter months and late fall. If any companies do so they say it will be on a very limited scale.

In previous years manufacturers began soliciting their dealers for orders as early as October. Shipments were actually made in November, December, January and February, but the orders were dated forward into the spring months, which meant that the dealer did not have to pay for his tires until April, May or June, when the theory was that part of the stock, at least, would have been sold.

Abandonment of spring dating is designed primarily to conserve the limited stocks of crude rubber, the intention being to regulate the demand so that raw materials would be used only in manufacturing tires which would go directly into the hands of consumers. In other words it would prevent an artificial demand being created, and it is believed the slowing up in production will allow depleted stocks of rubber to be replenished to some extent.

Over-production, which has been one of the great evils of the tire industry, will not be so apt to occur because of the elimination of spring dating.

Dining Car Buses Latest Innovation on West Coast

SAN FRANCISCO, Sept. 26.—Operation of through dining-observation-car motor coaches between San Francisco and Los Angeles will be inaugurated September 15 by Pickwick Stages, Inc., according to official announcement by this corporation, which adds that these are the first dining-car automobile stages ever operated in the world.

The two cars so far built are on exhibition in San Francisco, and four others are being constructed in the Pickwick shops here. One stage will leave San Francisco at 7 a. m., every day, and one from Los Angeles at the same hour, arriving at their terminals, 468 miles distant, at 9 p. m., of the same day. The fares, both one way and round trip, are approximately the same as railroad fares between the two cities, exclusive of the Pullman and observation car fees on the rail lines.

The new coach is divided into three sections—observation, smoker and buffet kitchen. There are twelve moveable reclining seats in the observation compartment, and eight in the smoker, giving the stage a capacity of 20 passengers. A button in the side of the coach at each chair, furnishes means of calling the

County Has Fewer Clocks Than Cars

Macomb, Ill., Sept. 26.—McDonough county possesses more cars than watches, according to summaries of the assessors' books published here. The assessors listed 4,143 cars and 3,881 watches and clocks. There were 3,064 carriages and wagons in the county.

steward and luncheon and dinner is served on small removable wall tables, which can be set up beside each chair.

The Pickwick company announces that it plans to put a number of these coaches in operation between the larger cities of the Pacific coast, until, by this time next year, one may travel in them from Vancouver, B. C., to Tia Juana, Mexico.

Champion Builds Two New Closed Bodies for Fords

ST. LOUIS, Mo., Sept. 26.—Champion Body Co., 3147 Locust boulevard, has introduced two new bodies for Ford cars, the Champion sport sedan and the Champion coupe.

The bodies are of hardwood and steel, finished in baked enamel with quarter panels and roof of soft construction to avoid closed car rumble. Doors are 28½ inches wide with up-to-date hardware and fittings, windows are raised and lowered with mechanical lifts and the windshields are of the one-piece type. Ventilators in cowls, sun visors, full crown fenders and mahogany instrument boards are features.

The sedan has a combination gas tank and trunk at the rear while the coupe has a gas tank and a roomy luggage compartment at the rear. The body has been lowered ten inches without sacrificing headroom, adding to the appearance and avoiding any suggestion of top heaviness. The sedan body sells for \$360 and the coupe for \$295.

NEW AUBURN DEALERS

AUBURN, Ind., Sept. 26.—New dealers who have recently been added to the Auburn organization include:

Bland's Auto Exchange, Springfield, Mass.; Wilshire Motors, Los Angeles; General Auto Shop, Appleton, Wis.; Calvin R. Smith, Marion, Ind.; Badger Garage, Wausau, Wis.; Auburn Sales Co. of New Jersey, Union City, N. J.; F. P. Rocco & Co., San Pedro, Cal.; Superior Motor Sales Co., Cleveland, O.; Eben Lesh & Carl W. Vicker, Huntington, Ind.; Norfolk County Motor Corp., Sharon, Mass.; Craddock Motor & Supply Co., Medford, Mass.; J. E. Dare, Harrisburg, Pa.; Foust Brothers, Hughesville, Pa.; Bazak Motor Co., Chicago, Ill.

CINCINNATI CO. ELECTS

CINCINNATI, Sept. 26.—At a reorganization meeting of the board of directors of the Cincinnati Electrical Tool Co., the following officers were elected: Joseph Wolf, president and treasurer; R. K. LeBlond, vice president; Edward G. Schultz, secretary.

Financial Details of Yellow Cab-G. M. Merger Completed

Directors of New Truck & Coach Mfg. Co. Announce Plans Following Board Meeting

DETROIT, Mich., Sept. 26.—Financial operations incident to the recent merger of the Yellow Cab Manufacturing Company and the truck division of the General Motors Corporation are announced by directors of the Yellow Truck and Coach Mfg. Company, the new holding corporation. The merger was announced July 7.

A stock dividend of \$15,000,000 in 150,000 shares of 7 per cent preferred will be distributed among holders of the 600,000 shares of class B stock, of record October 2, at the rate of one share of preferred for every four shares of B.

A new issue of 800,000 shares of \$10 par common was authorized for delivery to the General Motors Corporation, in payment for the assets transferred to the new company.

The present preferred stock, consisting of 6,750 shares of \$100 par value, owned by the Chicago Yellow Cab Company, will be retired at a price not stated.

The July 31 balance sheet of the Yellow Truck and Coach Mfg. Co., giving effect to the financing announced today, with the exception of new preferred issue, shows assets of \$36,662,989.71, with a surplus of more than \$16,000,000.

CANADA G. M. HEADS MEET

OSHAWA, Ont., Sept. 26.—Following the resumption of the McKenna duties, which means a great deal to the export business of General Motors of Canada, Ltd., came the visit of E. R. Reilley, managing director General Motors Ltd., London, England, and J. S. Castle, his assistant. These men visited Oshawa for the purpose of conferring with the executives of General Motors of Canada, upon export problems.

RAINBO PATENT BOUGHT

CHICAGO, Sept. 26.—D. W. Blanc, owner of the Sterling Auto Devices Company, 2016 West Lake street, has acquired through purchase from Nels B. Lundahl, Chicago, the patent on the Rainbo Dash Lamp Cap, which is now being marketed by the Sterling Auto Devices Company in connection with the Rainbo Accessories Company.

NEW REPUBLIC DEALERS

ALMA, Mich., Sept. 26.—According to an announcement by the Republic Truck Sales Corporation, new dealers have been appointed during the past few weeks as follows:

Dakota Auto Sales Co., Bismarck, N. D.; Buffalo Republic Truck Sales Co., Buffalo, N. Y.; Des Moines Republic Truck Co., Des Moines, Ia.; Service Motor Sales Co., Mandan, N. D.; T. L. Parker, Salt Lake City; Lind Automobile Co., Twin Falls, Ida.; Paige-Jewett Co., Houston, Tex.; T. L. Bowers, Toledo; Republic Sales Co., Wilkes Barre, Pa.



Along Automobile Row



DENVER.—The newly organized Locomobile Agency of Colorado has opened for business. Leo Cullen, the president, is a brother of the senior partner of Cullen-Thompson Motor Co., distributors of Chryslers.

MEMPHIS.—Burt-Overland Motor Co. has leased a place near its former home for the growing Memphis business. This will double the company's space by adding 13,000 square feet.

GALESBURG, Ill.—The P & M Motor Company, for the last 17 years dealer and distributor of Willys-Overland motor cars, has changed to Hudson-Essex.

MOLINE.—Ground has been broken and the foundation is well in for a new combination automobile show room and garage building under course of erection on Moline's main thoroughfare, Fifth Avenue. When completed the building will be occupied by the Service Motor Company of which Julius Gottlieb of Rock Island is president. This company has agencies for the Star, Durant and Flint cars.

DENVER.—Tom Savage, Inc., who has had the Gardner agency in this city for a number of years has added the retail Oldsmobile agency to his business.

DES MOINES.—E. G. Matthews, for many years prominent in automotive fields in this section of the state, has been named Urbandale dealer for the Ford. This brings the Des Moines Ford agencies back to their original number, three. The Herring Motor controls the downtown sales district and the Jensen Motor the Highland Park agency.

MINNEAPOLIS.—The J. N. Johnson Co., Inc., a pioneer tire sales organization, has leased a building at 1110 Harmon Place for its sales and repair work. The new place gives much more room for display and service.

BOSTON.—The Connell & McKone Company, New England distributors of the Gardner car, has announced that it has appointed Frank P. Anthony Company, 7 Brighton Avenue, for several years MacFarland distributor, its retail distributor for the Gardner line in Boston and vicinity.

DENVER.—Lewis B. Skinner, who has had the Jordan agency here, has resigned from the Denver Auto Dealers' Association and has retired from the automobile business. He will make his home in Tampa, Fla.

SPRINGFIELD, Mo.—Dillon Brothers Garage Company has taken over the Packard automobile agency for this district. Cars will not be displayed on the floor until Dillon Brothers move to their new building on January 1. The M. & W. Motor Company formerly had the Packard agency.

BOSTON.—The Boston Oldsmobile Company has appointed Alfred Reid, the former race driver, and formerly with the Leghorn Motors Company, that handled Gardner until recently, as used car manager.

DENVER.—The Denver Motors Company has taken the downtown agency for the Star and Durant line.

CLEVELAND, O.—C. W. Fields, formerly manager of the Flint branches at Pittsburgh, St. Louis and Flint, has been made manager of the Lakewood Walter F. Wright Co. branch here. He will sell Chrysler cars.

SAN ANTONIO, Tex.—The Auto Radiator and Body Works at 610 West Travis Street is one of the latest automotive concerns in San Antonio. George E. Norris and Ed Hudspeth compose the new company.

WILMINGTON, Del.—A new building is to be erected at the northwest corner of Eleventh and Washington Streets for the Studebaker Sales Company, of which H. H. Harper is president. This will give the company much more room than it has in its present location.

MOOSE JAW, Sask.—The Superior Motor Co., Ltd., Durant and Star dealer of this city, is removing to larger quarters where it will have greater facilities for handling increased business.

AKRON.—The Mankin-Ferris Automobile Co., distributor and dealer for Studebaker cars in the Akron territory, has broken ground for a \$150,000 garage and show room at Market and West Streets. The building will be 76x130 feet and three stories high.

CHICAGO.—The Irving Park Flint Company, 4140 Irving Park Boulevard, announces a change in its corporate name to the Fine-Thomas Motor Sales. It will handle the Reo instead of the Flint hereafter.

DES MOINES, Ia.—The Gibson Motor Car Company has been incorporated by William Gibson, president; T. R. Storey, vice-president, and Fred C. Hurst, secretary-treasurer, to handle the Cleveland Six in this territory.

MILWAUKEE.—Verbanataz-Boll, Inc., a new dealer firm, has been appointed Chrysler community dealer in Milwaukee and has established headquarters at 1914 North Avenue.

EAST MOLINE, Ill.—E. M. McKinzie has opened a Hudson and Essex agency in the Square Deal garage and made arrangements to provide service department for his patrons. Mr. McKinzie was with the Warren Sales and Service the last year and for three years prior to that with Horst & Strieter.

SALT LAKE CITY.—W. R. Cram, formerly a salesman for the Intermountain Motor Car Co., Salt Lake City, Utah, has organized the Cram Motor Car Co., headquarters of which will be in the Sugar House section of Salt Lake City. He will handle Star and Durant cars as an associate dealer.

CHICAGO.—The C. Hollenbeck Motor Sales Co., 6244 South Western Avenue, has been appointed dealer for Reo cars. Charles C. and William J. Hollenbeck are associated in the firm.

CALGARY, Alta.—Snell Motors, Ltd., has been appointed authorized dealer in Calgary for Oakland cars.

DETROIT.—Art T. Robins has been made manager of the East Side Overland Company, Lansing, which has just opened a sales and service branch at the corner of Michigan and Larch Streets. Mr. Robins is a veteran of the Lansing Automobile Road.

ST. LOUIS.—A used car salesroom will be opened by the factory branch of Willys-Overland, Inc. at 2926-28 Locust Boulevard in the building formerly occupied by J. M. Lederer & Co., Willys-Knight and Overland dealers.

WILMINGTON, Del.—Carl Nagle, a pioneer automobile man here, has become sales manager for the Delaware Nash Motor Co., Inc.

MILWAUKEE.—E. A. Drott, E. H. Groth, and Joseph H. Kerber who recently purchased the King Motor Supply Co., of Milwaukee, have changed its name to the Replacement Parts Corporation and have entirely reorganized the company. Headquarters have been moved from 131 Oneida street to Sixteenth and Wells streets. Changes in stock have been made and the company now specializes in crankshaft bearings, piston rings, pistons, bushings, valves, gaskets and similar parts.

CHICAGO.—H. Paulman & Co., for twenty-three years distributors of Packard automobiles in Chicago, after October 1 will be engaged in the real estate business, selling Chicago and Florida lands. Henry Paulman and Joseph V. Lawrence are the members of the firm. Offices will be maintained at 332 South Michigan Avenue.

VANCOUVER, B. C.—Motor Drome, (L. McLeod) proprietor, has opened a new garage at 1378 Broadway West. This firm handles Hudson and Essex cars.

DETROIT.—Reo Motor Car Co. branch building on East Michigan avenue, Lansing, has been remodeled which will give it more display space and greater accommodation for looking after the needs of Reo owners.

BUFFALO, N. Y.—Charles S. Dussing, Ford salesman for the last 10 years, formerly with the Allen Street Garage, and Edmund Riselay, Ford dealer, is now manager of Buffalo's Used Ford Car Market, 354 Genesee street.

VANCOUVER, B. C.—Willis-Kingsley Motors, Ltd., Studebaker dealer, is now occupying a new modern garage which is one of the most up-to-date in Western Canada.

MILLERSBURG, Pa.—The Utica Cycle Supply Co., of Utica, N. Y., has been appointed a distributor by the Millersburg Reamer & Tool Co., makers of "Smooth-Kut" reamers and has moved into a new three-story home.

MINNEAPOLIS.—M. L. Martin, 2006 Commerce street, Dallas, Tex., has been appointed southwestern representative of the Parafactor Company, it is announced at the headquarters of the company here. Mr. Martin will have the states of Texas, Oklahoma, Louisiana and Arkansas.

MILWAUKEE.—New equipment to handle all automotive electrical trouble in motor cars has been installed by the Economy Auto Electric Service of 352 Sixteenth street, Milwaukee, formerly the Economy Battery & Ignition Service. The company has recently been appointed an authorized Westinghouse battery service station.

CLEVELAND, O.—L. A. Dall, of the Dall Motor Parts Company, manufacturers of pistons, is again devoting full time to the affairs of the company, after having spent the last year with another one of his interests.

CHICAGO.—Dave B. Brim, owner of the Parkview Motors Company, Chrysler dealer, has closed his public garage at 3029 West Grand avenue and is converting the building into a factory as an addition to the plant at Grand Rapids, where "Dee-Bee" enclosures are manufactured.

INDIANAPOLIS.—J. F. Minthorne has been appointed retail sales manager for the Indianapolis-Flint Company with plant at 962 North Meridian street and will have charge of retail sales at the factory branch here.

SALT LAKE CITY.—A. Burt Martinson, formerly of the Highway Motor Co., Pocatello, Idaho, has been appointed traveling salesman for the Intermountain Motor Car Co., Salt Lake City, Utah, to handle the Flint car.

AKRON.—Arthur O. Roberts, at one time assistant advertising manager of the Velie Motors Corporation, has joined the Miller Rubber Co. advertising staff.

DEL RIO, Tex.—M. E. Woolf, Hudson-Essex dealer at Del Rio is erecting a new home for his business at a cost of \$25,000. The building will be two-stories high. The first floor will be used for sales and service rooms for Hudson and Essex and the upper floor as a hotel.

ROCHESTER, N. Y.—The Ford sales and service station and garage, operated at Perry, near here for years by Watkins and McKurth, Inc., has been purchased by a syndicate of Perry, Genesee and Rochester business men. The sale includes all of the real estate, new cars, parts and tools now in stock.

DETROIT.—David Clamage, general manager of the Republic Truck Sales Co. has announced the removal of his firm to larger quarters at 282 to 284 Milwaukee avenue, Detroit.

GENOA, Ill.—E. W. Lindgren, who has been Ford agent here for some time, has given up his contract, but will continue to handle Ford parts and accessories. He has taken on the Hudson-Essex cars.

With the Associations

Durham, N. C., Has Association

DURHAM, N. C., Sept. 26.—With every local agency except one represented, Durham automotive dealers organized the Durham Automotive Trade Association. Officers were elected to serve until January 1 and it was decided to hold bi-weekly sessions with the next meeting scheduled October 2 at 1 o'clock at Forest Hills club.

S. P. Alexander, of the Alexander Motor Company, was named president, and A. M. Worth of the Worth Motor Company, was selected as secretary-treasurer. Committees will be announced at the next meeting by President Alexander and a more permanent organization effected.

From the outset it was agreed that too many rules and regulations have proved fatal to automotive associations in Durham in the past and the present organization was effected with idea of being a vehicle for bringing competitive interests together every week or so for a frank, open discussion of problems peculiar to the automotive industry.

A resolution adopted at the summer convention of the North Carolina Automotive Trade Association at Wilmington recently protesting against excise tax on automobiles was unanimously approved.

Harry Clendenin, president of the North Carolina Automotive Trade Association, and C. W. Roberts, secretary-treasurer of the state organization, both of Greensboro, addressed the meeting and aided in perfecting organization of the local association.

Detroit Season Opens

DETROIT, Sept. 26.—With the coming of fall, the Detroit Auto Dealers' Association has resumed its monthly meet-

ings. The first of the fall meetings was held at the Book-Cadillac hotel in Detroit. Walter J. Judd, president of the association, presided with Douglas Malloch, noted humorist, as the principal speaker of the evening.

Concentration Protested

GREENSBORO, N. C., Sept. 26.—The North Carolina Automotive Trade Association has formally requested automotive financing companies to cease assembling cars at central locations, even bringing them from other states, after possessing them to satisfy claims, according to C. W. Roberts, secretary of the association, whose office is located here. It was explained that this concentration and later sale tends to demoralize the used car markets of such concentration points. The association suggested that the finance companies resell the cars at the towns where the dealer made the sale.

Jaywalking Is Attacked

CHARLOTTE, N. C., Sept. 26.—Jaywalking, a national evil, the direct cause of unnumbered hundreds of fatal traffic accidents, is epidemic throughout the United States because pedestrians "just didn't think," according to C. W. Roberts, of Greensboro, N. C., secretary of the Carolinas Automotive Trade Association and secretary of the Carolina Motor Club, the largest organization of motor car owners in the South. Mr. Roberts is conducting a "safety first" campaign, which is under the active direction of C. T. Matthews, whose staff is proving the claim of the Motor Club's executives that the jaywalking menace can be removed to a large extent by nothing more drastic than merely influencing the public to "think."

Denver Branch Organized

DENVER, Sept. 26.—Members of the Denver Automobile Dealers' Association have just completed the organization of the Denver Used Car Managers' Association, as an auxiliary of the main body. Tom Braden, secretary of the dealers' association, is temporary secretary of the new organization, which will elect permanent officers at its first monthly meeting.

It is planned to hold these meetings at the various places of business of the members at regular intervals, and to have particular members responsible for each program, as well as to have informal discussion of trade problems. Letters have been sent to member firms, giving the name and phone number of one member from each firm, who will be available to answer calls and give reliable and definite information on values in used cars of the makes handled by his firm.

In this way it is hoped that a greater feeling of confidence will be developed in used car information acquired from each other, and the used car market in Denver thus be put on a more satisfactory basis than has been the case in the past, where such information was secured in a haphazard manner, and often from salesmen who had no particular interest in taking pains to make accurate replies to inquiries from other firms.

Minneapolis Show Dates

MINNEAPOLIS, Sept. 26.—The Minneapolis Automobile Trade Association has selected February 6-13, 1926, as the dates for the annual automobile show, which will be in the Overland building across the city limits of St. Paul. Harry E. Wilcox is manager.

Milwaukee Automotive Merchants Picnic



Here is one group at the annual picnic of the Milwaukee Automotive Merchants. Happy? Of course

MILWAUKEE, Sept. 26.—Every branch of the automotive industry in Milwaukee, including automobile dealers, accessory manufacturers, jobbers wholesalers and service station executives was repre-

sented at the Milwaukee Automobile Dealers' Association annual picnic, at Lakeside Hotel on Pewaukee Lake, near Milwaukee. One of the days features was a baseball game between passenger car

and truck dealers; another was a golf tournament and another a big booster dinner and community sing which closed the picnic. W. B. Achen, president of the dealers' association was in charge.

Hudson-Essex Passes High Output Mark of 200,000

Production Increases From 60,000 in 1922, 88,000 in 1923 and 128,000 in 1924

DETROIT, Mich., Sept. 26.—More than 200,000 Hudson and Essex cars have been manufactured to date this year, according to figures released this week by the Hudson Motor Car Co.

This total of six cylinder cars—the largest number of sixes ever produced in a similar length of time in the history of the industry—is growing at the rate of 1200 cars a day. With the autumn season still ahead, it seems assured that this year will be recorded as one of the most sensational successes ever scored by any concern.

The growth of Hudson-Essex in recent years may be judged from the fact that production was 60,000 cars in 1922; that it increased almost 50 per cent to 88,000 in 1923; and that it added 50 per cent to this enlarged total by scoring 128,000 in 1924.

Now, with 200,000 cars already manufactured and with business booming at an unprecedented rate, it seems that 1925 will double the business done in the 1924 season.

Ford May Enter Textile Industry in N. Carolina

CHARLOTTE, N. C., Sept. 26.—An impending invasion of the textile manufacturing industry of the South by Henry Ford was seen by leading figures here when reports gained wide circulation that the Detroit automobile magnate was engaged in negotiations for the purchase of the Loray mill, at Gastonia, near here, which is valued at from \$6,000,000 to \$7,000,000.

Confirmation of the report is lacking, and executives of the mill, one of the units of the Manville-Jenckes chain of mills, declined to discuss the report. These executives did not deny the negotiations are in progress however.

It was understood that Edsel Ford made a visit to the mill a fortnight ago, and offered \$6,000,000 for it, after surveying the property. It was reported the Manville-Jenckes Corporation, of Pawtucket, R. I., set \$7,000,000 as the value of the plant, which manufactures fabric used in the manufacture of automobile tires.

August Titles in Illinois Show 32 Per Cent Drop

CHICAGO, Sept. 26.—Registration of statistics covering new passenger cars in Illinois during August reveal that there was a decline of 32 per cent as compared with the previous month. Registrations normally are heavy in July due to the fact that many defer them until after July 1 in order to take advantage of the semi-annual license fee, a fact which

Automobile Shows

Salt Lake City.....	Oct. 1-7
Third annual Automobile Show and forty-seventh annual State Fair in Coliseum Building, Wm. D. Sutton, supervisor of Automobile Show.	
Danbury, Conn.....	Oct. 5-10
Eighth annual fair, Danbury Fair Auto Building, under direction of Danbury Agricultural Society, passenger cars, trucks, tractors, accessories, etc., H. Lage, manager.	
Boston.....	Oct. 10-17
World's Rubber and Tropical Exposition, Mechanics Hall, Chester I. Campbell, manager.	
Chicago.....	Oct. 10-17
Seventh annual Used Automobile Show under auspices of Chicago Automobile Trade Association, at Coliseum.	
Dallas, Tex.....	Oct. 10-26
Annual Automobile Show, State Fair Automobile Building, under the auspices of the Dallas Automotive Trade Association. J. W. Connell, manager.	
Boston.....	Oct. 12-17
Annual radio show in Mechanics' Building. Shelton Fairbanks, manager.	
Shreveport, La.....	Oct. 24-Nov. 8
Twentieth Annual State Fair showing passenger cars, trucks and tractors.	
Chicago.....	Nov. 5-7
Annual show in connection with convention of National Standard Parts Association, Coliseum.	
Chicago.....	Nov. 9-14
Seventh annual exhibit of the Automotive Equipment Association at Coliseum, in connection with annual convention.	
New York.....	Nov. 15-21
Twenty-first Annual Automobile Salon.	
New York.....	Jan. 9-15
National Automobile Show in Grand Central Palace.	
Newark, N. J.....	Jan. 16-23
Nineteenth annual Automobile Show under auspices of New Jersey Automobile Exhibition Co., Chamber of Commerce Building.	

probably accounts for the decrease.

Registration of Fords was 44 per cent under July, caused probably by buyers waiting to see what the new models would be. Low-priced cars (excluding Fords) declined 25 per cent from the July figures, while the losses in the medium and high-priced classes were 24 and 30 per cent respectively.

Following are the detailed figures for the first eight months of 1925:

		Low, excl.			
Mo.	Fords	Fords	Med.	*High	Total
Jan.	4,060	2,275	5,748	808	12,891
Feb.	3,424	1,718	4,977	612	10,731
March	5,714	2,729	6,416	784	15,643
April	9,010	3,755	8,801	861	22,427
May	8,751	3,644	8,014	899	21,308
June	6,473	3,400	6,383	828	17,084
July	8,499	4,305	8,787	1,035	22,626
Aug.	4,686	3,218	6,646	720	15,270

*Includes miscellaneous cars not named.

The foregoing figures were compiled from data furnished to MOTOR AGE by Robinson's Advertising Service, Springfield, Ill.

Coming Motor Events

Chicago.....	Jan. 30-Feb. 6
Twenty-sixth Annual National Automobile Show and Eleventh Annual Automobile Salon.	
Louisville, Ky.....	Feb. 15-20
Louisville Automobile Show, Armory, under the auspices of the Louisville Automobile Dealers Association, J. Garland Lea, manager.	

Races

Fresno, Cal.....	Oct. 3
Rockingham (Salem, N. H.).....	Oct. 17
Baltimore.....	Oct. 24
Charlotte, N. C.....	Nov. 11
Los Angeles, Cal.....	Nov. 26

Conventions

Buenos Aires, Argentine.....	Oct. 3-13
Pan-American Road Congress.	
Des Moines, Ia.....	Nov. 12-13
Automotive Merchants' Association Convention.	
Montreal, Que.....	Oct. 7-18
Fall convention of the Motor and Accessory Manufacturers Association.	
Pittsburgh, Pa.....	Oct. 12-14
Pennsylvania Automotive Association Convention.	
St. Louis.....	Nov. 17-19
Annual Convention of National Tire Dealers' Association.	
Montreal.....	Oct. 13-14
Convention of the National Association of Automobile Insurance Companies.	
New York.....	Jan. 11-13
Second World Motor Congress, under auspices of National Automobile Chamber of Commerce.	

Foreign Shows

Berlin, Germany.....	Nov. 26-Dec. 6
Annual Automobile Show in the Kaiserdamm.	
Buenos Aires, Argentina.....	Oct. 3-13
Pan-American Road Congress.	
London, England.....	Oct. 8-17
Olympia Passenger Car Show.	
London, England.....	Oct. 29-Nov. 7
Annual Truck Show.	

New Chevrolet Dealers Are Named by New Orleans Firm

NEW ORLEANS, Sept. 26.—Felix Doran Jr., sales manager of the Chevrolet Motor Company, distributing headquarters for the Chevrolet line in Louisiana and Mississippi, announces the appointment of Brownlee-Wells Motors, Inc., of Shreveport, La., formerly Maxwell and Chrysler dealers, as the new Chevrolet dealers in Shreveport.

The sales force has been practically doubled, the capacity of the service station increased and many unfilled orders for cars booked, according to Roy C. Wells, director of sales. Other recently appointed Chevrolet dealers, according to Mr. Doran, include:

Doucet-Chevrolet Co., Ville-Platte, La.; Red Arrow Service, Inc., Bunkie, La.; Insley Motor Co., Delhi, La.; Marion Chevrolet Co., Marion, La.; Minden Chevrolet Co., Minden, La.; Wilkins Chevrolet Co., McComb, Miss., and Collins Motor Co., Collins, Miss.

American Cars Win Seven Of 15 Major Soviet Prizes

Trucks Made in U. S. Capture Four of Five Awards in Motor Trials

WASHINGTON, D. C., Sept. 26.—In the 3,000-mile international motor trials, which have just been concluded in the Soviet Union, covering a period of 30 days, American touring cars took seven of the 15 major prizes and American trucks took four of the five major prizes, according to a cable received by the Russian Information Bureau here from the committee of award in Moscow.

Nearly 100 motor cars and 50 trucks, including the principal makes of the United States, Germany, France, Italy and Austria, and some English cars, participated in the trials. The passenger cars covered a route of 3,000 miles, from Leningrad to the Black Sea and return to Moscow, and the trucks covered 1,200 miles. Heavy rains and washouts were encountered over part of the trip. Demonstrations were given in the principal towns on the route.

The passenger touring cars were sent off in three columns or groups, prizes being awarded for each column as follows:

First prize offered by the state, for best general performance: First column, Mercedes; second column, Buick; third column, Steyer.

Prize for solidity and endurance: First column, Studebaker, second grade Cadillac; second column, Buick second grade Pierce Arrow; third column Austro-Daimler, second grade Steyer.

Prize for economy of operation: First column, Fiat; second column, Buick; third column, Praha.

Speed prizes: First column, Mercedes, second column, Buick; third column, Austro-Daimler.

Trucks, state prize for general performance, Mercedes, economy of operation, G. M. C., passing ability, White. Endurance and solidity, Pierce Arrow. Passing ability, second grade, Dodge Brothers.

Brilli Peri Wins Big Italian Race

(Continued from page 14)

rather early, one of them turning over without any damage to the driver. Eldridge, the English driver, came with a car which had never been run and did not endure for more than a dozen laps. Jules Goux took the lead of the 91-inch group and held it for 450 miles, when he was forced out with broken valves. This gave Constantini, who had been held back at the beginning by spark plug trouble the necessary opportunity to get in the lead. The fastest lap among the 91-inch cars was made by Constantini at 92.91 miles an hour, and his average for the 500 miles was 86.479 miles an hour.

The fastest lap among the 122-inch cars was 3 min. 37.49 sec., equal to 104.03



SQUEEKS and RATTLES



Autoepitaphs

Tom Jones has gone to heavenly heights;
He tried to drive without his lights.
Jack Hayes this busy life forsakes;
He never would re-line his brakes.
Here's all that's left of Amos Bossing;
He tried to beat it to the crossing.
No more from Brown are earthly smiles;
He took the curve at forty miles.
Ted Small has gone to his abode;
He kept the middle of the road.
Here lies our friend, poor Tony Dix;
For booze and gasoline won't mix.
Jim Henry's friends are all bereft;
He made a short turn to the left.
Ben Gray is free from earthly pains;
A rainy day—he had no chains.
Poor Bill's beneath the sod, alas!
He speeded up and tried to pass.
Now Tom has joined the heavenly band;
He tried to drive it with one hand.

—Georgia Highways.

No Alternative

We are forced to lead a fast life, as those not in pursuit of happiness are fleeing from trouble.

—Ziff's.

The scenery is that green stuff you see between the billboards.

—The Road.

The Point of View

"Before you get one," writes S. H., "they are 'those confounded autos'; after you get one they are 'these darn fool pedestrians'."

—Boston Transcript.

The supreme penalty is called for when the car carries no headlights and the driver is all lit up.

—Syracuse Herald.

Our guess is that aviation will never be thoroughly successful until the aviators can park in the sky.

—Dallas News.

Reasonable

"Why have they got that man in chains?"

"They caught him slipping."

—Ziff's.

The Lingo

A boy left the farm and got a job in the city. He wrote a letter to his brother who elected to stick to the farm, telling of the joys of city life in which he said: "Thursday we autoed out to the Country Club, where we golfed until dark. Then me motored to the beach for the week-end."

miles an hour, made by Brilli Peri. During practice both Milton and Kreis had turned laps in 3 min. and 31 sec. Final results:

1. Brilli Peri, Alfa Romeo (122 inch) 5:14:33.33
(Average, 94.76 miles an hour)
2. Campari, Alfa Romeo (122 inch) 5:35:30.19
3. Constantini, Bugatti (91½ inch) 5:44:40.91
4. Milton, Duesenberg (122 inch) 5:46:40.46
5. De Paolo, Alfa Romeo (122 inch) 5:48:10.27
6. Fernand de Vizcaya, Bugatti 5:59:49.39
7. Foresti, Bugatti 5:55:19.55
8. Pierre de Vizcaya, Bugatti 6:1:32.7

Greater Reduction in Tire Replacements Is Expected

AKRON, O., Sept. 26.—A still further reduction in the average number of tire replacements per car is expected by tire and automotive engineers in 1926, as a result of improved methods of construction, which cut the average consumption of automobile tires per car almost in half from 1917 to 1924.

The average number of tires used as replacements on each car in 1917 was 4.52, while in 1924 this figure was re-

duced to only 2.74 tires. This record was made, despite the fact that the average automobile in 1924 was used more than the average car in 1917.

The production of automobile tires, however, has kept on the increase, although they last longer, because of the rapid increase of automobiles in this country.

KENNEDY GOES TO EUROPE

CLEVELAND, Sept. 26.—J. A. Kennedy, "champion tire-changer of the world," brother of James Kennedy, president of the Pacific Rim Tool Co., Cleveland, sailed today for contests at the Olympic Show in London, and will later visit Holland, Sweden and other points on the Continent.

CORRECTION

In last week's issue of MOTOR AGE was a news item stating that Louis Geyler, long known in the automotive industry in Chicago, had retired from the industry, having severed his connection with the Case and Chandler companies. This was in error in that Mr. Geyler has not at any time been connected with Chandler which is now and for many years has been distributed in Chicago by Thomas J. Hay. Mr. Geyler's latest connection with the industry was as Chicago distributor for Case and Gardner.

Prices and Weights of Current Passenger Car Models

SHIP. WT. PASS. BODY STYLE. PRICE				SHIP. WT. PASS. BODY STYLE. PRICE				SHIP. WT. PASS. BODY STYLE. PRICE				SHIP. WT. PASS. BODY STYLE. PRICE			
AJAX				CHEVROLET				DUESENBERG				HERTZ			
108 in. W. B.				"Superior" (Series K)				Straight "8"				D-1			
2210	5-p	Touring	\$865	1780	2-p	Roadster	\$525	3920	2-p	Roadster	†	3360	5-p	Sedan	\$1,695
2410	5-p	Sedan	995	1875	5-p	Touring	525	3970	4-p	Roadster	†	HUDSON "Super Six"			
ANDERSON "41"				2030	2-p	Utility Coupe	675	3700	4-p	Phaeton	\$6,650	3425	7-p	Phaeton	\$1,250
2650	5-p	Touring	\$1,195	2130	5-p	Coach	695	3920	4-p	Phaeton	†	3450	5-p	Coach	1,195
2675	4-p	Sp. Touring	1,445	2215	5-p	Sedan	775	3980	4-p	Sp. Phaeton	†	3425	4-p	Brougham 4 d.	1,495
2925	2-p	Coupe	1,425	CHRYSLER "Four"				4500	4-p	Sedan	†	3675	7-p	Sedan	1,695
2875	5-p	Sedan	1,695	(109 in. W. B.)				†Manufacturers do not quote list prices.				HUPMOBILE "R"			
2925	5-p	Sp. Sedan	1,895	2300	5-p	Touring	\$895	DU PONT "D"				2595	2-p	Roadster	\$1,225
2975	7-p	Touring	1,595	2405	2-p	Club Coupe	995	3300	2-p	Roadster	\$2,600	2705	5-p	Touring	1,225
3200	7-p	Sedan	1,945	2510	5-p	Coach	1,045	3550	5-p	Touring	2,600	2760	2-p	Coupe	1,350
APPERSON "6"				2570	5-p	Std. Sedan	1,095	3800	7-p	Touring	2,750	2875	5-p	Club Sedan	1,375
3100	5-p	Phaeton	\$1,575	"Six" (112 1/4 in. W. B.)				3550	5-p	Touring Sedan	\$4,400	"E"			
3130	5-p	Sp. Phaeton	1,650	2805	4-p	Roadster	\$1,625	DURANT A-22				3050	2-p	Roadster	1,795
3145	4-p	Coupe	2,050	2785	5-p	Phaeton	1,395	2225	5-p	Sp. Roadster	900	3270	4-p	Roadster	1,895
3570	5-p	Sp. Sedan	2,100	2895	5-p	Coach	1,445	2395	5-p	Touring	810	3135	5-p	Touring	1,795
3520	5-p	Brougham	2,050	2935	4-p	Coupe	1,795	2505	5-p	Spec. Coupe	1,160	3295	2-p	Coupe	2,095
"ST 8"				2995	5-p	Brougham	1,865	2505	5-p	Sedan	1,150	3295	4-p	Coupe	2,095
3520	5-p	Sp. Phaeton	1,995	3060	5-p	Sedan	1,695	2505	5-p	Spec. Sedan	1,280	3410	5-p	Sedan	2,195
3750	4-p	Coupe	2,450	3085	5-p	Imperial Sedan	1,995	ELCAR "4-55"				JEWETT "23-25"			
3770	5-p	Brougham	2,450	3090	5-p	Crown Sedan	2,095	2560	5-p	Touring	\$1,095	3025	4-p	DeLuxe Road.	\$1,500
3790	5-p	Sedan	2,595	3225	5-p	Town Car	\$725	2900	5-p	Coach	1,195	3015	5-p	DeLuxe Touring	1,320
AUBURN				CLEVELAND "31"				2779	5-p	Sedan	1,395	3000	5-p	Coach 2d.	1,245
2900	5-p	"6-66" Sport-Roadster	1,495	2325	5-p	Touring	\$895	2779	5-p	Touring	1,295	3150	5-p	DeL. Coach 2d.	1,400
2885	5-p	Touring	1,895	2435	5-p	Touring DeLuxe	1,025	2900	5-p	Coach	1,395	3305	5-p	DeLuxe Sedan	1,680
2900	5-p	Brougham	1,595	2680	5-p	Coupe	975	2779	5-p	Sedan	1,295	JORDAN Series "A"			
2885	5-p	Sedan	1,795	2750	5-p	Sedan	895	2900	5-p	Touring	1,595	3330	2-p	Playboy Road.	\$2,275
2885	5-p	Wanderer	1,845	2810	5-p	Touring De Luxe	1,195	2779	5-p	Touring	1,295	3340	5-p	Touring	2,275
2885	5-p	"8-88" Sport-Roadster	1,975	2910	5-p	Sp. Touring	1,195	2779	5-p	Coach	1,395	3450	3-p	Friendly "9"	2,575
2885	5-p	Touring	1,995	3000	5-p	Coach	1,295	2900	5-p	Sedan	1,595	3625	5-p	Brougham	2,575
2885	5-p	Brougham	2,250	3190	5-p	Sedan De Luxe	1,595	2900	5-p	Sedan	1,595	3520	4-p	Victoria	2,475
2885	5-p	Sedan	2,850	3190	5-p	Sport Sedan	1,625	2900	5-p	Sedan	1,595	3525	5-p	Sedan	2,675
2885	5-p	Wanderer	2,400	COLE "MASTER"				3700	5-p	Sp. Touring	2,165	3470	7-p	Sedan	2,925
BUICK "Standard"				3675	4-p	Volante Touring	\$2,325	3700	5-p	Touring	2,265	KISSEL "55"			
2885	5-p	Roadster	\$1,125	3795	7-p	West. Touring	2,325	3700	5-p	Coupe Roadster	2,315	3130	2-p	Speedster	\$1,785
2885	5-p	Touring	1,150	3675	4-p	Aero-Vol. Tour.	2,475	3700	5-p	Sedan	2,265	3130	2-p	Sp'dster De Luxe	2,185
2885	2-p	Coupe	1,195	4055	5-p	Brouette Sedan	\$2,225	4050	7-p	Sedan	2,765	3130	2-p	Speedster	1,995
2885	4-p	Coupe	1,275	4000	7-p	Royal Sedan	\$2,225	4050	5-p	Brougham	2,865	3130	2-p	Sp'dster De Luxe	2,285
2885	5-p	4d. Sedan	1,295	4100	7-p	Royal Limousine	\$3,325	ESSEX				3580	2-p	Enc. Speedster	2,285
2885	5-p	2d. Sedan	1,195	CUNNINGHAM				2185	5-p	Touring	\$850	3190	4-p	Enc. Sp'd'r DeL.	2,785
2885	5-p	"Master"	1,195	4600	7-p	Touring	\$7,000	2370	5-p	Coach	795	3190	4-p	Tourster	1,895
(120 in. W. B.)				4500	4-p	Sp. Touring	6,500	FLINT "55"				2980	5-p	Tourster DeL.	2,085
2885	2-p	Roadster	1,250	4700	4-p	Coupe	8,000	3325	4-p	Sport Roadster	\$1,950	2980	5-p	Phaeton	1,685
2885	5-p	Touring	1,295	5000	6-p	Limousine	8,500	3245	5-p	Touring	1,595	3170	5-p	Phaeton DeL.	1,885
2885	5-p	Sedan	1,495	DAGMAR "6-70"				3810	4-p	Sp. Touring	2,050	3170	5-p	Touring	1,785
2885	5-p	2d. Sedan	1,895	3750	4-p	Roadster	\$3,500	3245	4-p	Coupe	2,195	3430	4-p	Touring De L.	1,985
(128 in. W. B.)				3800	4-p	Sp. Tourer	\$3,500	3595	5-p	Sedan	2,285	3430	4-p	Coupe	2,185
2885	3-p	Sp. Roadster	1,495	3700	4-p	Phaeton	\$3,500	3565	5-p	Brougham 4 d.	2,485	3540	5-p	Coupe De Luxe	2,585
2885	5-p	Sp. Touring	1,625	4200	4-p	Petite Coupe	4,500	2715	5-p	Touring	1,185	3540	5-p	Brougham Sedan	1,995
2885	4-p	Country Club	1,765	4200	4-p	Petite Sedan	4,500	2940	5-p	Sedan 4 d.	1,495	3540	5-p	Broug. Sed. DeL.	2,685
2885	4-p	Coupe	1,795	4500	4-p	De Luxe Coupe	4,750	2965	5-p	Brougham	1,575	3540	5-p	Brougham 2 d.	1,795
2885	5-p	Brougham Sedan	1,925	4700	5-p	Sedan	4,700	2715	5-p	Touring	1,185	4070	7-p	Sedan De Luxe	3,285
2885	7-p	Sedan	1,995	4800	7-p	Sedan	4,750	2940	5-p	Sedan 4 d.	1,495	4010	7-p	Berline Sed. DeL.	\$3,835
CADILLAC "V-63" Standard Line				DAVIS "90"				FORD				3530	5-p	Victoria	2,285
(132 in. W. B.)				2650	4-p	M. o'War Road.	\$1,495	Without Starter and Dem. Rims				3530	5-p	Victoria De Luxe	2,685
4075	2-p	Coupe	\$3,045	2915	4-p	Legionaire Tour.	1,495	1369	2-p	Runabout	\$260	3530	5-p	Speedster	2,195
4155	7-p	Sedan	3,295	2750	5-p	Phaeton	1,395	1494	5-p	With Balloon Tires	305	3530	5-p	Speedster De L.	2,485
4240	5-p	Brougham	2,995	3070	5-p	Sedan	1,695	1521	2-p	Runabout	335	3530	5-p	Speedster	2,295
4360	7-p	Imperial	3,435	3065	5-p	Imperial Sedan	1,795	1644	5-p	With Balloon Tires	370	3530	5-p	Speedster De L.	2,585
4360	4-p	Victoria	3,095	2835	4-p	Berline Sedan	1,795	1749	2-p	Coupe	520	3530	5-p	Enc. Sp'd'r DeL.	2,985
Custom Built (132 in.)				3020	5-p	Roadster	1,795	1882	5-p	With Balloon Tires	545	3530	5-p	Tourster	2,195
3260	3-p	Roadster	\$1,840	3245	5-p	Phaeton	1,695	1927	5-p	Sedan, Tudor	580	3530	5-p	Tourster De L.	2,385
3290	5-p	Touring	1,885	3215	5-p	Sedan	1,895	1927	5-p	With Balloon Tires	605	3530	5-p	Phaeton	1,985
3470	5-p	Sp. Touring	2,160	3215	5-p	Imperial Sedan	2,095	1644	5-p	With Balloon Tires	400	3530	5-p	Phaeton De Luxe	2,185
3570	4-p	Sub. Coupe	2,480	3215	5-p	Berline Sedan	2,095	1749	2-p	Coupe	520	3530	5-p	Touring	2,085
3640	5-p	Sedan	2,590	DIANA "St. 8"				1882	5-p	With Balloon Tires	545	3530	5-p	Touring De Luxe	2,285
3650	5-p	Brougham	2,590	2970	5-p	Roadster	\$1,895	1927	5-p	With Balloon Tires	605	3530	5-p	Coupe	2,485
"X"				2990	5-p	Phaeton	1,895	1927	5-p	With Balloon Tires	660	3530	5-p	Coupe De Luxe	2,885
3020	3-p	Roadster	1,570	3245	5-p	Std. Sedan 2d.	1,995	1927	5-p	With Balloon Tires	685	3530	5-p	Sedan	2,895
3050	5-p	Touring	1,595	3245	5-p	DeLuxe Sedan	2,195	1927	5-p	With Balloon Tires	685	3530	5-p	Broug. Sed. DeL.	2,985
3380	5-p	Sub. Coupe	2,290	3130	5-p	Cabriolet	2,095	1927	5-p	With Balloon Tires	685	3530	5-p	Brougham 2 d.	2,195
3380	5-p	Victoria	2,290	3140	5-p	Sedan de Luxe	2,095	1927	5-p	With Balloon Tires	685	3530	5-p	Sedan De Luxe	3,485
3400	5-p	Sedan	2,385	DODGE BROTHERS				1927	5-p	With Balloon Tires	685	3530	5-p	Berl. Sed. De L.	3,585
3950	7-p	Touring	2,225	2473	2-p	Roadster	\$855	1927	5-p	With Balloon Tires	685	3530	5-p	Victoria	2,585
4320	7-p	Sedan	2,975	2593	2-p	Special Roadster	955	1927	5-p	With Balloon Tires	685	3530	5-p	Victoria De Luxe	2,985
CHANDLER "SS"				2593	5-p	Touring	875	FRANKLIN "11-A"				3120	2-p	Roadster	2,145
3090	2-p	Roadster	\$1,695	2695	5-p	Spec. Touring	975	2800	3-p	Sport Roadster	\$2,750	3195	5-p	Touring	2,095
3132	4-p	Roadster	1,785	2708	2-p	Coupe "B"	960	2845	5-p	Touring	2,685	3489	7-p	Touring	2,195
3085	5-p	Sport Touring	1,495	2823	2-p	Spec. Coupe "B"	1,060	2965	3-p	Coupe	2,700	3230	5-p	Lark Touring	2,345
3223	7-p	Touring	1,595	2995	5-p	"B" Sedan	1,045	3175	5-p	Sedan	3,090	3363	5-p	Cal. Touring	2,495
3248	4-p	Royal Dispatch	1,885	3077	5-p	Spec. "B" Sedan	1,145	3080	5-p	Sport Sedan	\$3,225	3395	7-p	Cal. Touring	2,495
3376	5-p	Coach	1,595	3020	5-p	Sedan A	1,195	3275	7-p	Limousine	\$3,275	3375	7-p	Royal Coach	2,495
3309	5-p	Brougham	1,695	3107	5-p	Spec. "A" Sedan	1,								

Prices and Weights of Current Passenger Car Models

SHIP. WT. PASS. BODY STYLE. PRICE

LOCOMOBILE "48"			
5280	4-p	Sportif Tour	\$7,460
5380	7-p	Touring	7,460
5680	5-p	Victoria Sedan	10,060
5464	7-p	Brougham	10,040
5640	7-p	Touring Lim.	9,500
5868	7-p	Enc. Drive Lim.	10,050
5600	7-p	Cabriolet	10,300

3100	2-p	Roadster	2,150
3000	5-p	Touring	1,785
3400	5-p	Sedan	2,285
3350	5-p	Brougham	2,285

McFARLAN "6"

"SV"			
3700	2-p	Roadster	\$2,650
.....	2-p	Spec. Roadster	2,900
3600	5-p	Touring	2,650
.....	7-p	Touring	2,750
3850	4-p	Coupe	3,180
3850	5-p	Sedan	3,180
.....	5-p	Spec. Sedan	3,180
3850	7-p	Sedan	3,280
.....	5-p	Sub. Sedan	3,380
.....	7-p	Sub. Sedan	3,480
.....	5-p	Brougham 4 d.	3,180

"TV"			
4000	2-p	Roadster	5,400
4600	4-p	Sp. Touring	5,600
4900	4-p	Coupe	6,720
5200	4-p	Tour. Sedan	6,720
5200	7-p	Tour. Sedan	6,810
.....	6-p	Sedan	6,720
.....	7-p	Sedan	6,810
.....	7-p	Spec. Sedan	6,810
.....	7-p	Enc. Sedan	7,110
.....	7-p	Sub. Sedan	7,110
5200	7-p	Town Car	9,000

MARMON "74"

3695	2-p	Roadster	\$3,295
3604	5-p	Phaeton	3,295
3704	7-p	Touring	3,295
3799	5-p	Brougham Coupe	3,295
.....	4-p	Victoria Coupe	3,295
.....	2-p	Std. Coupe	3,295
3869	5-p	Sedan	3,295
3859	5-p	Sedan De Luxe	3,775
3999	7-p	Sedan	3,370
3974	7-p	Sedan De Luxe	3,850
3969	5-p	Sedan Limousine	3,900
3999	7-p	Sedan Limousine	3,975

MERCER "6"

3860	3-p	Runabout	\$4,500
3950	6-p	Touring	4,500
3900	4-p	Sporting	4,500
4070	4-p	Coupe	6,250
4240	5-p	Sport Sedan	6,250
4350	4-p	Tour. Limousine	6,500
4300	4-p	Brougham	6,500

MOON Series "A"

2490	5-p	Roadster	\$1,395
2675	3-p	Cab. Roadster	1,595
2510	5-p	Touring	1,195
2750	5-p	Coach	1,895
2750	5-p	DeL. Sedan 2 d	1,495
2850	5-p	Std. Sedan 4 d.	1,545
2850	5-p	DeLuxe Sedan 4d	1,695

London			
3270	5-p	Sp. Touring	1,985
.....	7-p	Touring	1,985
3590	5-p	Petite Sedan	2,540

NASH "Special"			
2870	2-p	Roadster	\$1,135
2980	5-p	Touring	1,135
3120	5-p	Sedan 2d	1,265
3300	5-p	Sedan 4d	1,545

"Advanced"

(121 in. W. B.)			
3320	3-p	Roadster	1,375
3400	5-p	Touring	1,375
3550	5-p	Sedan 2 d	1,485

"Advanced"

(127 in. W. B.)			
3480	7-p	Touring	1,525
3640	4-p	Victoria	2,090
3750	5-p	Coupe 4 d.	2,190
3830	7-p	Sedan	2,290

OAKLAND "6"

.....	5-p	Touring	\$1,025
.....	5-p	Coach	1,095
.....	3-p	Landau Coupe	1,125
.....	5-p	Sedan	1,195
.....	5-p	Landau Sedan	1,295

OLDSMOBILE "30"

2235	5-p	Touring	\$875
2445	5-p	Sp. Touring	980
2460	5-p	Coach	950

SHIP. WT. PASS. BODY STYLE. PRICE

OLDSMOBILE (Cont'd)			
2660	5-p	De Luxe Coach	1,040
2535	5-p	Sedan	1,025
2785	5-p	De Luxe Sedan	1,115

OVERLAND "91" 4

(100 in. W. B.)			
1919	5-p	Touring	\$495
.....	2-p	Coupe	625
2205	5-p	Sedan De Luxe	695
2202	5-p	Std. Sedan 2 d.	595

"93" 6

(112 1/2 in. W. B.)			
2443	5-p	Sta. Sedan	895
2584	5-p	Sedan DeLuxe	1,095

PACKARD "6"

(126 in. W. B.)			
3643	4-p	Roadster	\$2,785
3653	5-p	Touring	2,585
3595	4-p	Sp. Touring	2,750
3753	4-p	Coupe	2,585
3937	5-p	Sedan	2,585

(133 in. W. B.)

3793	7-p	Touring	2,785
4043	7-p	Sedan	2,785
.....	5-p	Club Sedan	2,725
4143	7-p	Sedan Limousine	2,835

"8"

(136 in. W. B.)			
4060	4-p	Runabout	3,950
4090	5-p	Touring	3,750
4023	4-p	Sp. Touring	3,900
4242	4-p	Coupe	4,650
4528	5-p	Sedan	4,750
.....	2-p	Coupe	5,775

(143 in. W. B.)

4199	7-p	Touring	3,950
.....	5-p	Club Sedan	4,890
4655	7-p	Sedan	5,000
4710	7-p	Sedan Limousine	5,100

PAIGE "21-24"

3875	4-p	Phaeton	\$2,165
3935	7-p	Phaeton	2,165
4100	5-p	Sedan De Luxe	2,395
4325	7-p	Sedan De Luxe	2,840

PEERLESS "6-72"

(126 in. W. B.)			
3175	5-p	Touring	\$1,895
3425	5-p	Coupe	2,295
3500	5-p	Sedan	2,395

(133 in. W. B.)

3275	2-p	Roadster	2,195
3300	7-p	Touring	1,995
3700	7-p	Sedan	2,595
3825	7-p	Limousine	2,695

"8-67"

3950	4-p	Phaeton	2,845
3995	7-p	Phaeton	2,895
4300	5-p	Town Brougham	3,895
4310	5-p	Town Sedan	3,495
4400	7-p	Sub. Sedan	3,595
4525	7-p	Berline Lim.	3,795
4100	4-p	Victoria Coupe	3,245
4150	5-p	Sub. Coupe	3,295

PIERCE-ARROW "33"

4350	2-p	Runabout	\$5,250
4500	4-p	Touring	5,250
4590	7-p	Touring	5,250
4730	3-p	Coupe	6,800
4800	4-p	Sedan	6,900
4960	7-p	Sedan	7,000
4750	4-p	Coupe Sedan	6,900
4730	6-p	Brougham	6,800
4850	7-p	Limousine	7,000
5060	7-p	Enclosed Lim.	7,000
4780	7-p	French Lim.	7,000
4730	6-p	Landaulet	7,000

"80"

3205	2-p	Roadster	2,895
3260	4-p	Phaeton	3,095
3385	7-p	Phaeton	2,895
3430	5-p	Coach	3,150
3365	4-p	Coupe Laudau	3,820
3335	4-p	Coupe	3,695
3440	5-p	Sedan	3,895
3560	7-p	Sedan	3,995
3615	7-p	Enc. Drive Lim.	4,045

REO "T-6"

3350	2-p	Roadster	\$1,665
3182	5-p	Sp. Touring	1,595
3350	2-p	Coupe	1,495
3400	5-p	Sedan 4 d.	1,565
3545	5-p	Spec. Sedan	1,745

REVERE "25"

3900	2-p	Sp. Roadster	\$2,750
3975	4-p	Speedster	2,750
4050	5-p	Touring	2,750
4300	5-p	Sedan	3,800

"M"

3700	2-p	Roadster	3,200
3800	4-p	Sportster	3,200
3970	5-p	Touring	3,200
4400	5-p	Sedan	4,000

SHIP. WT. PASS. BODY STYLE. PRICE

RICKENBACKER

"Six" (117 in. W. B.)			
.....	3-p	Roadster	\$1,595
.....	5-p	Phaeton	1,495
.....	3-p	Coupe Roadster	1,695
.....	3-p	De Luxe	1,820
.....	4-p	Coupe De Luxe	1,995
.....	5-p	Spec. Sedan	1,795
.....	5-p	De Luxe	1,920
.....	7-p	Sedan De Luxe	2,070
.....	5-p	Coach Brougham	1,595
.....	5-p	De Luxe	1,720

"Eight" (121 1/2 in. W. B.)

.....	3-p	Roadster	1,995
.....	5-p	Phaeton	1,995
.....	3-p	Coupe Roadster	2,095
.....	3-p	De Luxe	2,220
.....	5-p	Spec. Sedan	2,195
.....	5-p	De Luxe	2,320
.....	7-p	Sedan De Luxe	2,470
.....	5-p	Coach Brougham	1,995
.....	5-p	De Luxe	2,120

ROAMER

"6-50-55" (115 in. W. B.)			
.....	2-p	Roadster	\$1,385
.....	5-p	Spec. Tourer	1,245
.....	2-p	Bus. Coupe	1,295
.....	5-p	Coupe	1,395
.....	5-p	Sedan DeLuxe	1,595

"6-54-E" (118-138 in. W. B.)

.....	4-p	Roadster	2,385
.....	4-p	Tourer	1,985
.....	4-p	Sport	2,285
.....	7-p	Tourer	2,285
.....	3-p	Cabriolet	2,750

"4-75-E" (128 in. W. B.)

"Custom Built"			
.....	2-p	Speedster	\$4,485
.....	3-p	Sport	3,285
.....	4-p	Tourer	2,985

"8-88" (138 in. W. B.)

.....	4-p	Roadster	2,750
.....	5-p	Sport	2,750
.....	5-p	Tourer	2,395
.....	7-p	Tourer	2,585
.....	2-p	Speedster	2,985
.....	3-p	Cabriolet	2,950
.....	5-p	Spec. Sedan	3,285
.....	7-p	Sedan (186-in. W. B.)	3,185
.....	5-p	Brougham	2,785

ROLLS-ROYCE

.....	Chassis	††	
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††Manufacturers do not quote list prices.

STANLEY "252"

3400	5-p	Phaeton	\$2,500
3800	5-p	Sedan	3,300

STAR

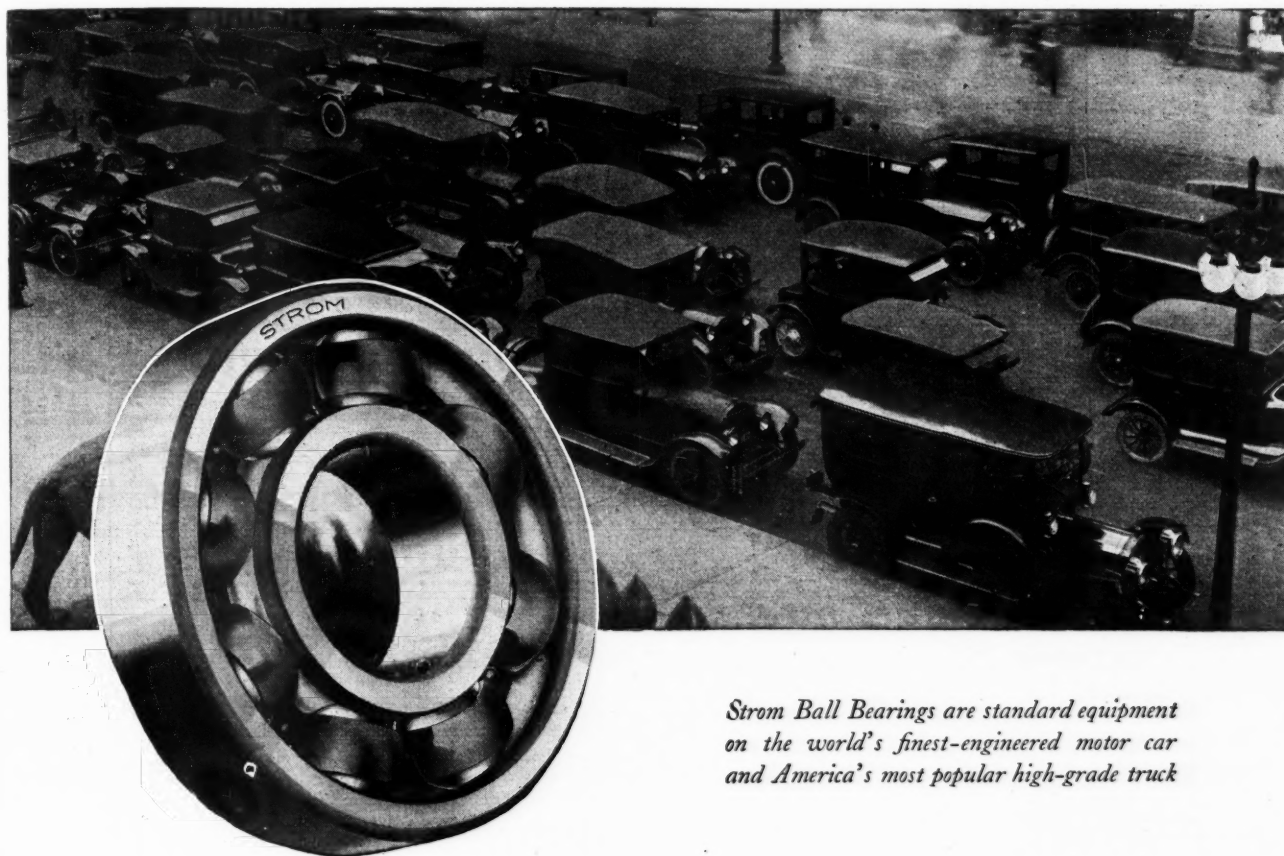
.....	2-p	Roadster	\$525
.....	5-p	Touring	525
.....	2-p	Coupester	595
.....	2-p	Coupe	675
.....	5-p	Coach	695
.....	5-p	Sedan 4 d.	775

STEARNS-KNIGHT

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This list comprises cars distributed on a national scale.

[illegible]



Strom Ball Bearings are standard equipment on the world's finest-engineered motor car and America's most popular high-grade truck

For smoother operation and greater dependability

TODAY, more than ever before, the public is buying cars on the basis of performance—estimating the worth of a car according to the number of miles of comfortable, trouble-free transportation it can be expected to deliver.

To insure utmost dependability, with more years, more miles of service, the engineers of America's leading makes of cars are approving Strom and Super-Strom Ball Bearings for use in all vital parts, particularly in transmissions, differentials and rear axles.

For Strom Ball Bearings increase the life of the part—give continued smoothness and quietness of operation by reducing friction and vibration to the minimum. Their superiority is proved by their enduring accuracy and much greater resistance to wear. They hold the axle or shaft in permanently rigid alignment, thus insuring longer life with

greater dependability and freedom from repair expense.

The new Super-Strom is a stock bearing—of the deep-grooved type without filling slots. It offers increased load-carrying capacity by the use of more or larger balls. In dimensional accuracy and concentricity, it compares favorably with bearings made to special specifications. Retainers are unusually sturdy—accurately pressed, rigidly riveted. The special analysis steel used in its manufacture is hardened throughout—not merely case-hardened—thus providing uniform hardness with elasticity which results in exceptional durability.

Strom Ball Bearings are available in quantity production—in a wide variety of types and sizes. Write for catalog and tables of load capacities at different r. p. m. and other technical data. Our engineers welcome inquiries.

Strom

BALL BEARINGS

MARLIN-ROCKWELL CORP., Successor to
STROM BALL BEARING MFG. CO., 4551 Palmer Street, Chicago, Ill.



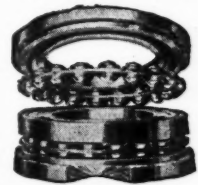
Single-acting thrust bearing, flat seats (grooved races) 1100-F Series



Double-acting thrust bearing, flat seats (grooved races) 2100-F Series



Single-acting, self-aligning thrust bearing, leveling washer, 1100-U Series



Double-acting, self-aligning thrust bearing, leveling washers 2100-U Series



Super-Strom deep groove, radial bearing



Double-row, deep-groove, radial bearing, bronze retainer



Angular contact bearing, combination radial and thrust



Adapter type bearing, with sleeve

(Continued on page 48)

S—Semi-elliptic
Sep—Separate

Pr—Pressure gun

Ar—Arched-quarter ellipse
K—Cone

F—Filter
F1—Full floating

Ex—External, four wheels
Ch—Chain

Mechanical Specifications of Current Passenger Car Models—Continued

(This list comprises cars distributed on a national basis)

From
Page
46

ENGINE										ELECTRICAL SYSTEM		REAR AXLE		BRAKES		Chassis Lubrication—Type and Make		ABBREVIATIONS—NAMES OF MFRS. OF STOCK PARTS									
Wheel Base (Inches)	Tire Size	Decimals-Balloons	Make and Model	Number of Cyls.	Bore and Stroke	Rated H.P.	Piston Displacement	Valve Arrangement	Camshaft Drive	Crankcase Inter. or Sep.	Piston Material	Oiling System	Cooling System	Thermostat	Carburetor	Air Cleaner?	Ignition System	Generator and Starter Make	Clutch—Type and Make	Universal—Type and Make	Type and Make	Gear Ratio	Foot—Type and Location	Hand—Type and Location	Wheel Type	Steering Gear—Make	Rear Springs—Type and Length
124	30x5.77	Own.....Jr. 8	25.3	206	I	Ch.	Int.	C.I.	5	P.K.	F	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Spi.....	1/2	Own	4.77	E-F	E-R	Ross.	Pr-Ze.	A-K—Atwater Kent	
142	35x6.75	Own.....48	48.6	525	T	He.	Sep.	C.I.	7	P.F.	F	N	Bal.....	N	DeJo.	DeJo.	Own.....	m-Spi.....	1/2	Own	4.77	E-F	E-R	Ross.	Pr-Ze.	A-L—Auto-Lite	
136	32x6.20	Own.....74	33.8	340	I	He.	Sep.	C.I.	3	P.F.	F	N	Sch.....	N	DeJo.	DeJo.	Own.....	m-Spi.....	1/2	Own	4.77	E-F	E-R	Ross.	Pr-Ze.	A-L—Auto-Lite	
127	32x6.20	Wis.....SV	27.3	268	T	Ch.	Int.	C.I.	3	P.F.	F	N	Ray.....	N	Wes.	Wes.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
140	34x7.20	Own.....TV	48.6	573	T	Ch.	Sep.	C.I.	3	P.F.	F	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
6	117-132	Own.....6	33.8	331	I	He.	Sep.	C.I.	3	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
128	32x6.20	Con.....8R	27.3	242	L	He.	Sep.	C.I.	3	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
113	30x5.25	Con.....72	27.3	196	L	He.	Sep.	C.I.	3	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
121-127	33x6.00	Own.....131	25.4	249	I	He.	Sep.	C.I.	3	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
112 1/2	31x5.25	Own.....131	25.4	249	I	He.	Sep.	C.I.	3	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
30	110 1/2	Own.....6-54	19.8	185	L	Ch.	Sep.	B.	3	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
91	30x4.95	Own.....30	19.6	154	L	Ch.	Int.	C.I.	3	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
127 1/2	29x4.95	Own.....93	21.6	170	L	Ch.	Int.	C.I.	3	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
128-133	33x5.77	Own.....6	29.4	289	L	Ch.	Sep.	C.I.	7	P.F.	R	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
8	136-143	Own.....8	36.4	358	L	Ch.	Sep.	C.I.	9	P.F.	R	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
21-25	131	Own.....10A	33.8	331	L	Ch.	Sep.	C.I.	9	P.F.	R	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
6-72	120-133	Own.....72	29.4	289	L	Ch.	Sep.	C.I.	7	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
67	128	Own.....67	33.8	332	L	Ch.	Sep.	C.I.	7	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
33	138	Own.....33	38.4	412	L	He.	Sep.	C.I.	7	P.F.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
80	130	Own.....80	29.4	289	L	Ch.	Sep.	C.I.	7	P.F.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
76	120	Own.....76	24.3	239	G	He.	Sep.	C.I.	4	P.F.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
25	131	Mon.....M	30.6	361	H	Ch.	Int.	Al.	2	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
121 1/2	31x5.25	Own.....D	33.8	331	L	Ch.	Sep.	C.I.	4	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
118-128	32x4 1/2	Own.....B-8	29.4	303	L	Ch.	Sep.	C.I.	3	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
6-54-E	115	Due.....G1	28.9	340	L	Ch.	Sep.	C.I.	3	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
6-50-E	118	Own.....3H	32.5	287	L	Ch.	Sep.	C.I.	5	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
8-88	138	Own.....40-50	48.6	453	L	Ch.	Sep.	C.I.	7	P.F.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
143 1/2	33x5 1/2	Own.....40-50	48.6	453	L	Ch.	Sep.	C.I.	7	P.F.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
143 1/2-150 1/2	33x5 1/2	Own.....40-50	48.6	453	L	Ch.	Sep.	C.I.	7	P.F.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
252	122	Own.....252	20.0	161	L	Ch.	Sep.	C.I.	2	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
4	102	Own.....Kn	22.5	249	X	Ch.	Sep.	C.I.	3	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
119	33x4 1/2	Own.....Kn	22.5	249	X	Ch.	Sep.	C.I.	3	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
121	33x6.00	Own.....Kn	29.4	289	X	Ch.	Sep.	C.I.	4	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
130	33x6.00	Own.....Kn	29.4	289	X	Ch.	Sep.	C.I.	4	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
138	33x5 1/2	Own.....G	47.3	511	L	Ch.	Sep.	C.I.	4	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
113	31x5.25	Own.....ER	27.3	242	L	Ch.	Sep.	C.I.	4	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
120	32x6.20	Own.....EQ	29.4	289	L	Ch.	Sep.	C.I.	4	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
127	34x7.30	Own.....EP	36.0	353	L	Ch.	Sep.	C.I.	4	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
6-94	120	Own.....691	29.4	289	L	Ch.	Sep.	C.I.	3	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
6-95	130	Own.....691	29.4	289	L	Ch.	Sep.	C.I.	3	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
60	118	Own.....50	27.3	242	L	Ch.	Sep.	C.I.	3	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
44	120	Con.....8R	27.3	242	L	Ch.	Sep.	C.I.	3	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
W6	118	Own.....W6	35.4	274	L	Ch.	Sep.	C.I.	7	P.F.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
8&C63	127	Own.....W6	33.8	285	L	Ch.	Sep.	C.I.	3	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
65	118	Own.....65	21.0	186	X	Ch.	Sep.	C.I.	3	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	
66	126	Own.....66	25.4	236	X	Ch.	Sep.	C.I.	7	P.C.	P	N	Str.....	N	DeJo.	DeJo.	Own.....	m-Uni.....	1/2	Own	4.90	E-F	E-T	Ross.	OW	B&B—Borg & Beck	

KEY TO SYMBOLS										KEY TO SYMBOLS									
CI—Cast iron										G—Head and side									
Cu—Central magazine										Gr—Grease cups									
Cu—Oil and grease cups										H—Horizontal (valves)									
E—Full elliptic										H—Hydraulic (brakes)									
F—Flat										H—Helical (gears)									
F—Flat										H—Helical (gears)									
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Hyatt Durability Benefits -----

The Manufacturer:

Increased competition has made it necessary that more durable motor cars be built which require less attention from the owner—with less attendant service charges. The durability of Hyatt bearings is constantly convincing more manufacturers that these are the bearings to adopt in order to secure longer life with less attention. They maintain constant gear centers and absorb shock loads at all times, which is the secret to quiet operation and durability.

The Dealer:

A Hyatt equipped car enables the dealer to emphasize the durability of the bearing equipment. Hyatt bearings continue indefinitely to perform their duty quietly—without adjustment—over any kind of a road—and even under adverse operating conditions.

The Owner:

The owner enjoys the durability of Hyatt bearings during every month and year he drives. As they are built into the car there is no play to take up either at assembly or after thousands of miles of travel. In fact, Hyatt bearings require no attention except for an occasional greasing.

HYATT Roller Bearings absorb road shock and driving strain—maintain proper alignment of shafts and gears—yet never require adjustment. Being quiet, rugged and long-lived, they seldom need attention. Because of these advantages they add prestige to the transportation they equip.

THE SIGN OF OFFICIAL HYATT SERVICE



HYATT

Quiet

Roller Bearings

HYATT ROLLER BEARING COMPANY

Worcester

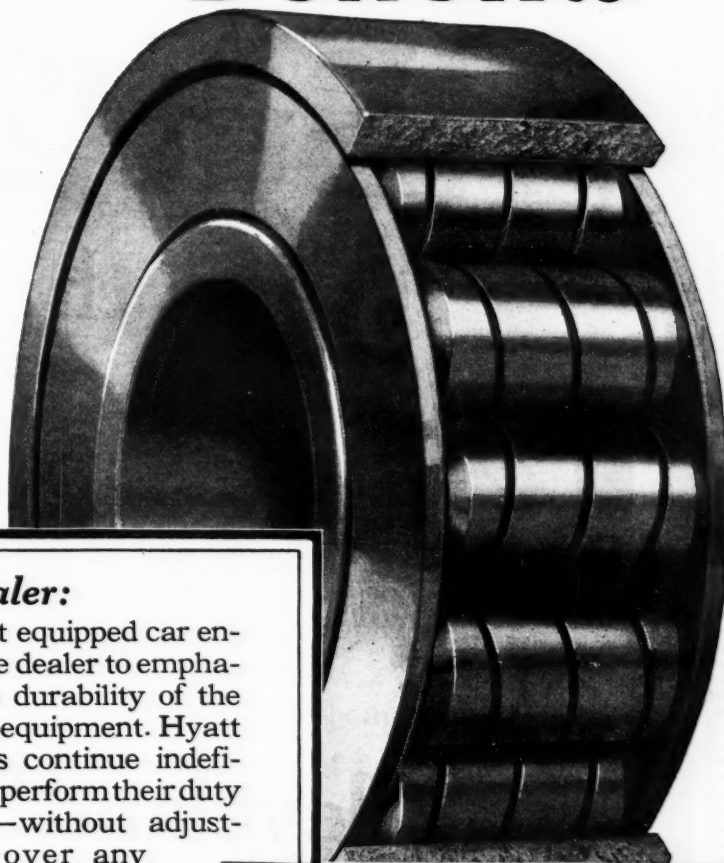
NEW YORK
Philadelphia

DETROIT

CHICAGO
Charlotte

SAN FRANCISCO
Pittsburgh

Cleveland



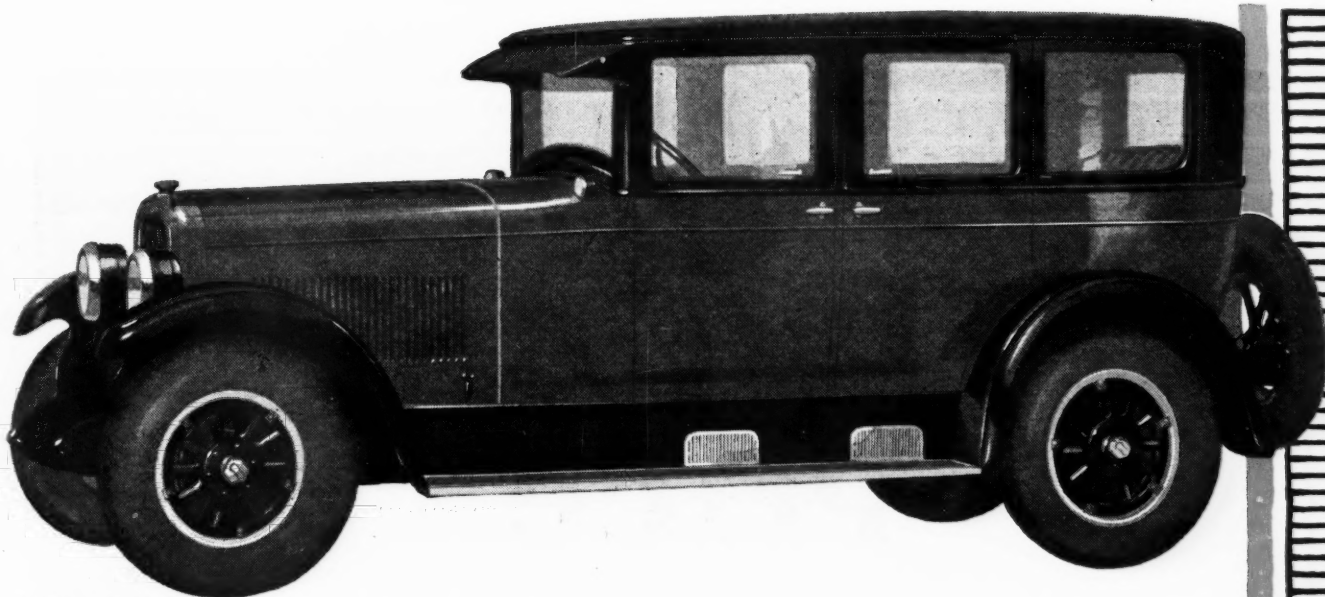
**Not \$50
Not \$100
But \$200**

This is the Way to

Reduce

**Cleveland Six now
builds two of the
Lowest Priced
Four-Door, Six-
Cylinder Sedans
in America!**

CLEVEL



Prices—

CLEVELAND SIX now places still another great sales advantage in the hands of dealers.

Selling at the fastest pace in all its history, Cleveland Six is able to make sweeping price reductions—and at the same time announce an entirely new, richer, finer Cleveland Six Special Sedan amazingly priced.

You can see at once the money-making value of a line that offers two of the lowest priced six-cylinder, four-door Sedans in America . . . the Four-Door Sedan, and the new Spe-

cial 4-Door Sedan, both reduced \$200!

Smart bodies of full length with *four* wide doors . . . real Sedans, not two-door coaches . . . abundant roominess and comfort, rich inside and rich outside. And equipped with the famous "One-Shot" Lubrication System.

With such fine cars at such low prices the Cleveland Six dealer franchise is vastly more valuable and profitable. All you need is a modest amount of capital, and we will help you to a flying start. Write us.

Four-Door Sedan \$995 formerly \$1195 [All Prices f. o. b. Cleveland] **Special Sedan \$1295** formerly \$1495

(The "One-Shot" Lubrication System is licensed under Bowen Products Corp. patents)

CLEVELAND AUTOMOBILE COMPANY • CLEVELAND
Export Division, 1819 Broadway, New York City

AND SIX



Quality now talks Price for the Dealer's Profit

On top of the news of Chandler breaking all previous time records in winning the annual automobile race up Pikes Peak, on September 7—Chandler now announces another and still greater piece of news—a greater car at a lower price.

It is one thing to reduce the price of a motor car. It is quite another thing to advance the quality of a motor car. But to do *both at the same time* means, for the dealer, a *double* selling advantage.

Chandler now presents the most important accomplish-

ment of its career. It is the new Chandler Twentieth Century Sedan—a magnificent, full-size, four-door Sedan that is priced *less than a two-door coach*. This is a \$505 reduction!

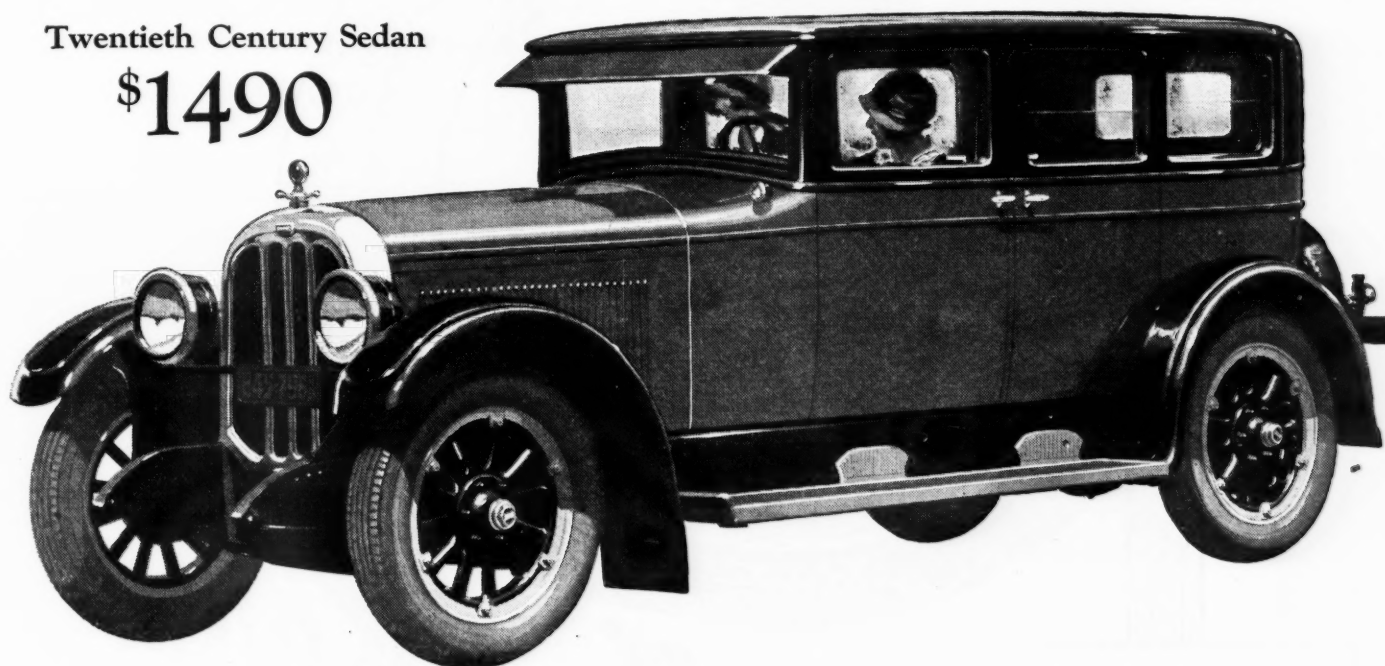
This new Chandler is a marked advance in coachwork ideals—on the *perfected* Chandler chassis, with the record-winning Pikes Peak Motor.

It marks progress in quality; progress in beauty; progress in comfort; progress in performance; progress in durability—and it means greater sales volume and greater profits to dealers.

C H A N

Twentieth Century Sedan

\$1490



**A Finer, Luxurious 4-Door Sedan
Priced Less than a 2-Door Coach**

Great Price Reductions

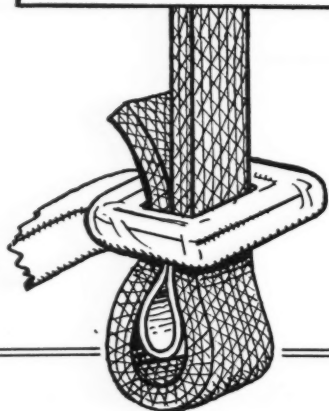
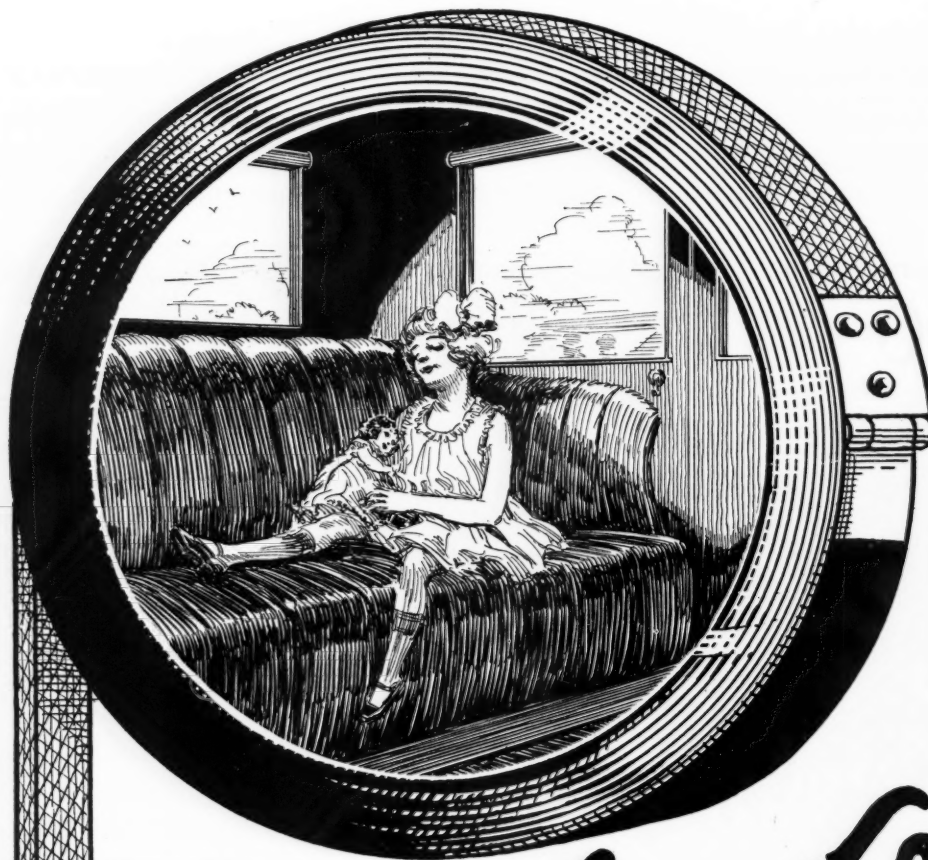
	New Price	Former Price
4-Door 20th Century Sedan	\$1490	\$1995
Metropolitan Sedan De Luxe	\$1795	\$2195
Seven-Passenger Sedan . . .	\$1895	\$2295
Brougham	\$1695	\$2045

All prices f. o. b. Cleveland

THE CHANDLER MOTOR CAR COMPANY, CLEVELAND
Export Division, 1819 Broadway, New York City

D L E R





Decker

"Idling Range"
SHOCK ABSORBERS

Take Care of Comfort

It is one of the fine arts to come in at the right time—and this is the function of Decker.

Decker "Idling Range" Shock Absorbers begin where the springs leave off, to take care of comfort.

They are simple to install, easily accessible, positive in action, automatically adjusting themselves to changing loads, weights and road conditions. They operate with equal effect with balloon or high pressure tires, and are dust, water and dirt-proof.

Care has been taken to make them readily salable. Ninety days in the hands of distributors, jobbers and dealers have proved that they are.

RICHARD M. DECKER CO.

3207 Shields Ave.

Chicago, Ill.

The Best **ACCELERATOR** *for Fords*



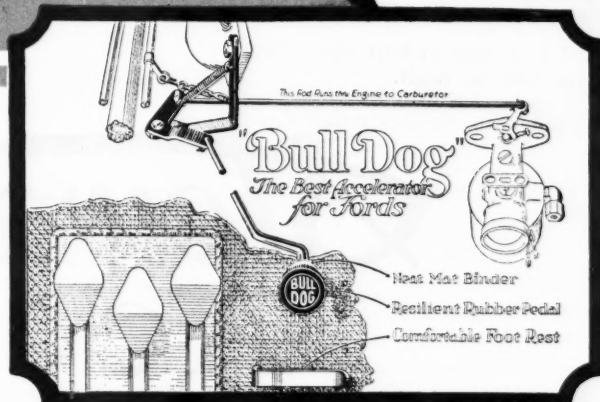
THE first "Bull Dog Accelerator" manufactured was right in principle—right in operation. Year after year it has been refined—but the simple idea of direct positive action has and always will be retained. Ford Owners know the "Bull Dog" as a comfortable—easily installed—efficient Foot Accelerator. They know it will last as long as the car itself without attention or trouble. They are sold on the "Bull Dog" and sold to a finish.

Are you one of the many dealers profiting by concentrating on "Bull Dogs?" They sell for \$1.50 and the one size fits all Fords and Carburetors for Fords.

The W. H. Thomas Mfg.
Company
SPENCER, IOWA

"Bull Dog"

FOOT ACCELERATOR *for FORDS*



The Improved Bull Dog is Universal—fits all Fords, including the new 1926 models.

What Will Stewart- Warner Do Next ?



This new Salesman is all Steel—with Steel supports and easel brace. The products are securely bolted on in an attractive group.

The background is a refreshing green—with maroon legs and yellow border.

The entire job is lithographed—with

name of each product.

Pockets in the upper center to contain folders describing each accessory.

The board is a convenient size—28½ in. wide by 38½ in. high.

Send the coupon for further particulars.

Tune in Stewart-Warner programs,
Station WBBM, 226 meters

Monday - 6-7 p.m.	Thursday 9-10 p.m.
Tuesday - 10-12 p.m.	Friday - 8-10 p.m.
Wednesday - 12-2 a.m.	Saturday - 11-1 a.m.
Sunday 4-6 p.m.	

CHICAGO TIME

Set dials at 12 on your Stewart-Warner
Matched-Unit Radio

Stewart Access The Daily Profit

New Display Stand

Will Increase Your Accessory Business

THE Home of the Stewart-Warner Family is endeavoring to do everything possible to promote the dealer's success.

We believe that we have hit upon a very practical idea in this new Display Stand.

Attractiveness of display—grouping all the major accessories so that a car owner—or a prospective car owner—may see at a glance all the Stewart-Warner Family—will go a long way toward winning volume for the dealer in accessory profits.

It makes it possible to push accessories to the front.

This stand—with its easel standard—may be placed in a conspicuous place on the salesroom floor or in a corner of the window or beside the entrance.

It may also be moved from place to place to suit changes in floor display.

Car dealers will appreciate this for it will stimulate interest in accessories—acting as a very effective salesman—promoting profits that quickly mount up to a very welcome sum.

Stewart-Warner Service Stations in 62 cities throughout the United States and Canada—and 34 distributing centers in foreign lands—have a very interesting proposition to offer dealers on this new business getter.

Ask the Stewart-Warner salesman who calls on you or send us the coupon below and we will have the Service Station near you explain the proposition.

This Display Stand hooks up with our perfected plan of distribution which serves the dealer in such a way that he can do a large volume of accessory business with a small stock—keeping supplied—as he requires stock—from the Stewart-Warner Service Station near at hand.

Multiplied turnover—a small investment—stock-record simplified—no dead stock nor losses from “orphans.”

Nationally advertised accessories known and used by millions of car owners. There is nothing like it in the accessory field.

Send the coupon today—it does not obligate you in any way.

STEWART-WARNER SPEEDOMETER CORPORATION
CHICAGO - U. S. A.

for Your Convenience

Stewart-Warner Speedometer Cor'n
1826 Diversey Parkway
Chicago, U. S. A.

We are interested in the NEW DISPLAY STAND and would like more particulars:

NAME _____

ADDRESS _____

CITY _____

STATE _____

M.A. 10-1-25

Stewart-Warner
Accessories
Profit for Dealers

*"Good-bye,
buggy wheels"*



BUDD-MICHELIN'S a wheel that adds to a car's reputation!

WHAT a life of ceaseless change the motor-car has had since the first horseless carriage chugged down the street!

Every maker recasting his models year after year in the race for reputation . . .

Striving for advantages in dependability, in power, in speed, in beauty, in comfort and convenience.

Yet for twenty years no one touched the wheels.

Why worry with wheels? How could they help sell the car?

Then a great engineer built a wheel that *could*!

Built it of the material that had brought the rest of the car to such perfection—*steel*!

Built it in a shape that used the natural resilience of steel to the utmost in absorbing strains and stresses and shocks—a *convex* shape . . .

Permitting the brakes and king-pins to be placed *within* the wheel . . . giving the brakes greater protection from mud and water.

A wheel that increased a car's reputation for easy riding, positive braking, easy steering—the Budd-Michelin!

A wheel that was found to be infinitely stronger than wood—that couldn't collapse or splinter. One

that, saving lives in a collision, made the occupants say "What a car!"

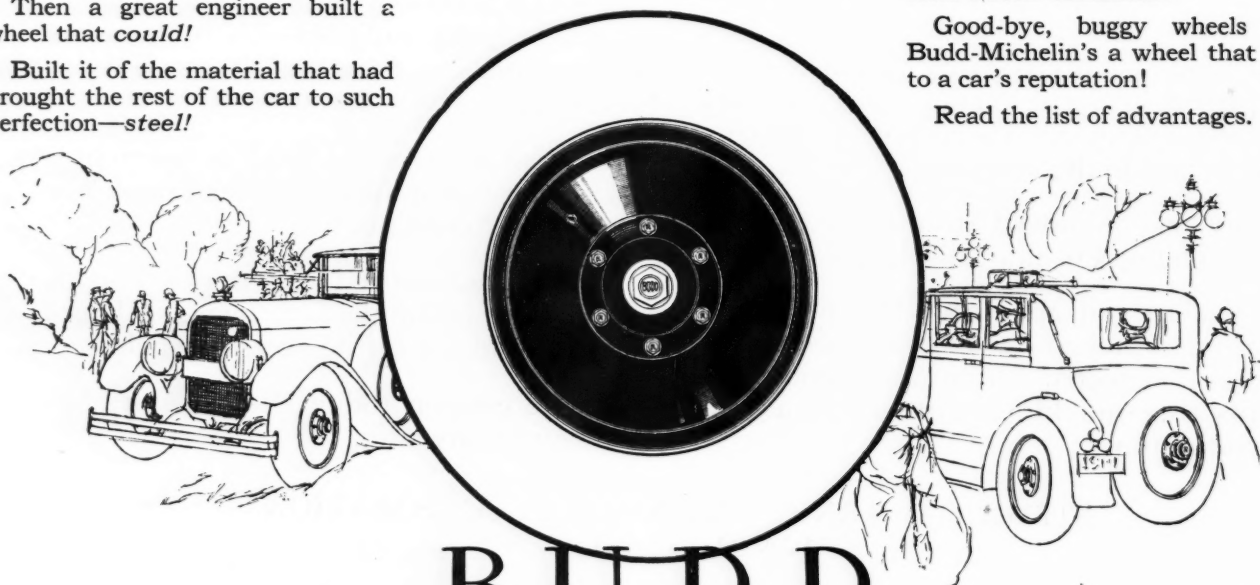
A wheel that was absolutely secure but easily demountable. In three minutes a tire could be changed . . . and in one minute the brakes could be exposed for adjustment.

And owners credited this convenience to the maker of the car!

No wonder Budd-Michelin is found on more than 50 per cent. of the motor-cars being made in Europe . . . and on more motor-vehicles in America than all other steel-wheels combined!

Good-bye, buggy wheels . . . Budd-Michelin's a wheel that adds to a car's reputation!

Read the list of advantages.



BUDD

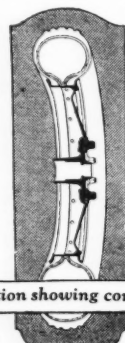
WHEEL COMPANY

Detroit and

Philadelphia

BUDD-MICHELIN—the All-Steel Wheel gives you these advantages:

—a scientific convex form, increasing resilience, and permitting the placing of brakes and king-pins *within* the wheel, for better braking and easier steering—for greater protection of brakes from mud and water

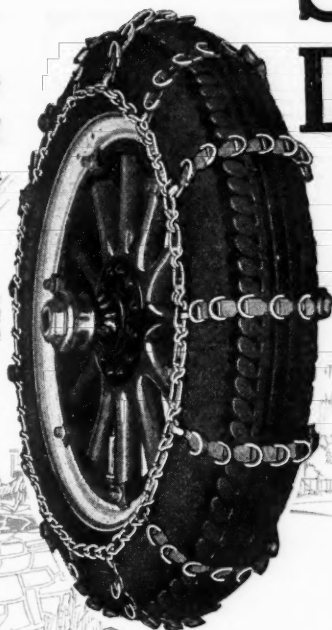


Cross-section showing convex design

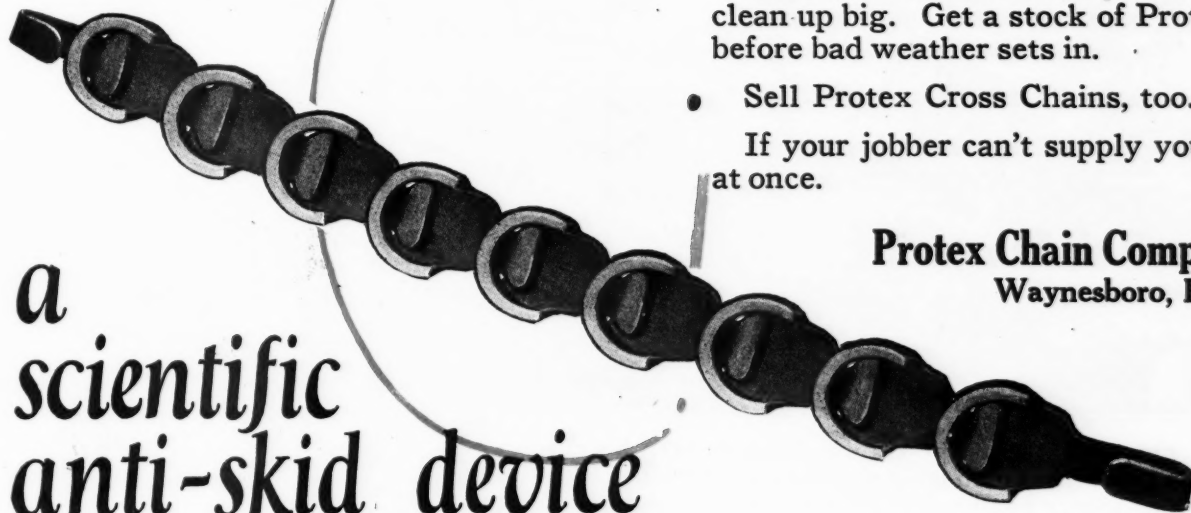
—a demountable wheel which hides the brakes but gives immediate access to them when adjustments are needed
—a light wheel (lighter than wood) tapering toward the rim, making starting and stopping easier
—five wheels to a set. An extra wheel to dress up the rear of the car, easy to substitute in case of tire trouble. No rims to remove
—everlasting strength, promoting safety. Triumphant beauty!

Not

*the chain that
held the Old
Oaken Bucket*



but



*a
scientific
anti-skid device*

Sell Chains That Drivers Will Use

Many drivers refuse to put on chains, because ordinary chains don't prevent skid.

Ordinary chains are made like the chain on the old oaken bucket. They were designed to hold the bucket—not the road.

Protex chains are specially designed anti-skid devices. They wouldn't work in the well, but they do hold the road.

A series of horseshoe edges guard against slip in all directions, while a movable toggle keeps the center free from ice and snow.

Protex Chains permit high speed because only about $\frac{1}{4}$ inch thick. The inner surface being broad and smooth, doesn't wear out the tire.

They solve the chain problem for balloons.

Here's a chance for any live dealer to clean up big. Get a stock of Protex Chains before bad weather sets in.

- Sell Protex Cross Chains, too.

If your jobber can't supply you, write us at once.

Protex Chain Company, Inc.
Waynesboro, Pa.

PROTEX TIRE CHAINS

ATWATER KENT

Ignition for FORDS



THE AUTOMOTIVE DEALER who helps to keep his customers' cars in good running condition has a definite service to offer. But the man who can show them how to *improve* performance is surely building for himself a profitable future.

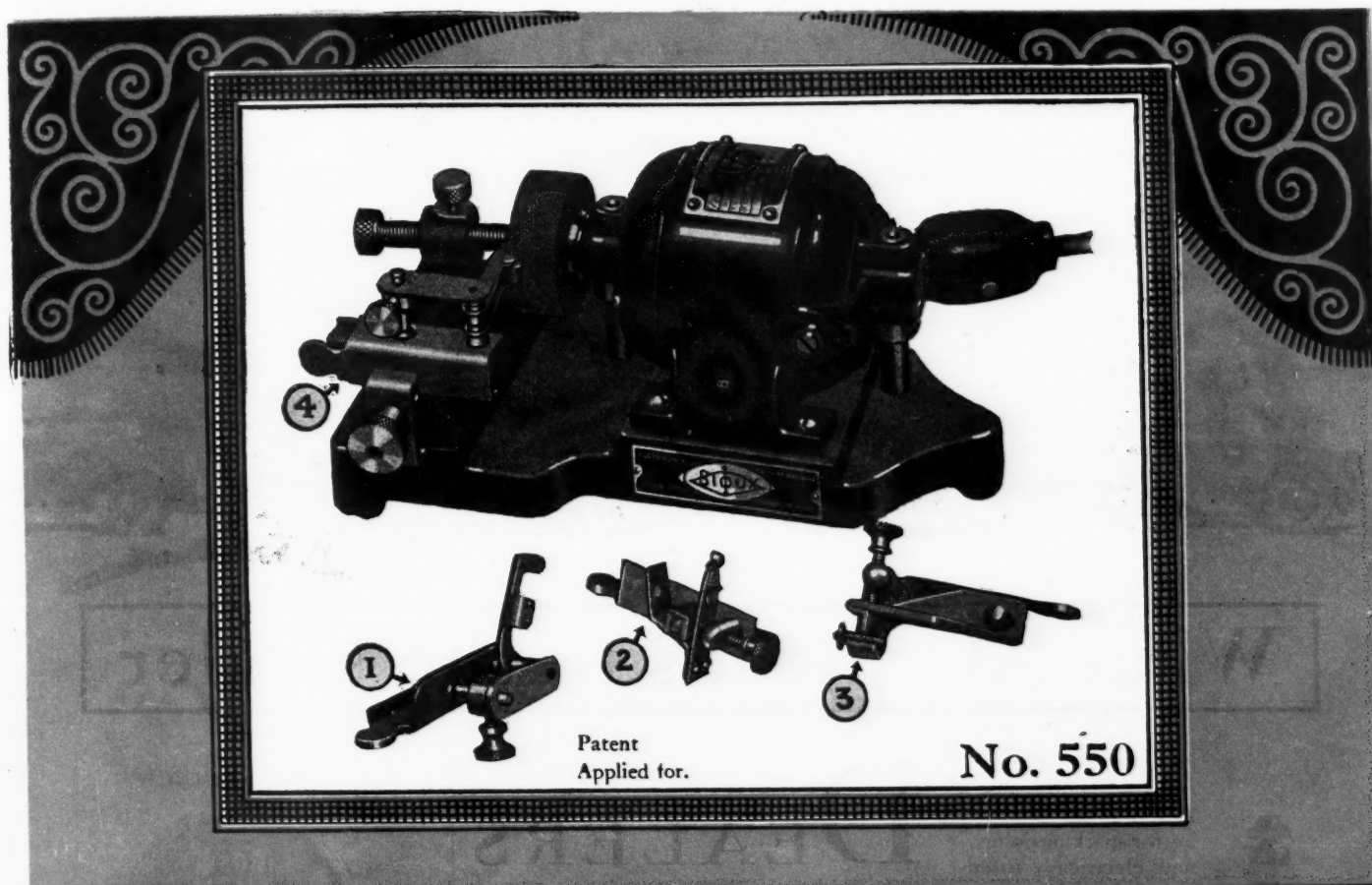
Start building for this future now with ATWATER KENT Ignition for Fords. No matter where you live, there is a ready-buying market all around you. There is a need always present, a consumer acceptance already created—plus a fair price, proven performance, and a great name to help you sell.

Take the first step today. Write us about our proposition.

ATWATER KENT MANUFACTURING COMPANY
4733 Wissahickon Ave., Philadelphia, Pa.

Type LA for Fords
\$1080

Including cables and fittings



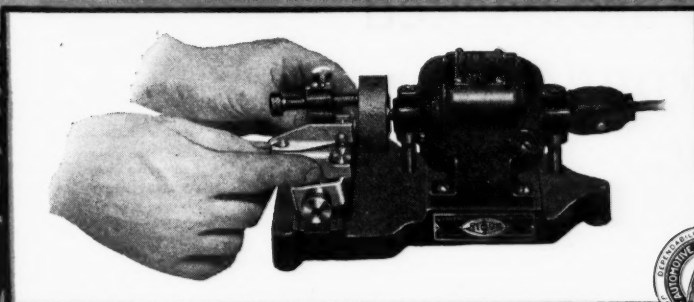
SIoux IGNITION POINT GRINDER

NOW you can grind any ignition point [tungsten or platinum] perfectly true and smooth—good as new—in jiffy time, no matter how badly pitted or burned. Ingenious adapter holds point square with grinding wheel surface, insuring results almost impossible with filing or stoning. Four adapters furnished to fit all points, including Ford spark coil plug. It also has a diamond point for refacing grinding wheel.

Many exasperating motor troubles such as missing, sputtering, stalling, hard starting, etc., are often caused by pitted ignition points. In such cases, proper grinding makes a big difference in the performance of a car. It should be a part of every motor overhauling job.

Order from Your Jobber

ALBERTSON & CO., SIOUX CITY, IOWA



SIoux
Trade Mark Reg. U.S. Patent Office



What AC Means to the Dealer

New AC Spark Plugs



A new design, new alloy for sparking points, new electrically fused Kyanite insulator core and a new glaze.

AC Carbon-proof Plugs are also made in all sizes.

The demand for AC Spark Plugs is assured through their use as factory equipment on the following cars:

Ajax	Davis	Nash
Apperson	Dodge	Oakland
Buick	Brothers	Oldsmobile
Cadillac	Durant	Paige
Case	Essex	Star
Chandler	Flint	Velie
Chevrolet	Hudson	Westcott
Chrysler	Kissel	Wills Sainte
Cleveland	Marmon	Claire

New AC 1075 for Fords



The special features of the AC 1075 make it the most desirable plug for Fords. Dealers are building a big and profitable business by emphasizing these features in making sales:

- 1 Spring Terminal Clip
- 2 Heavy Body Porcelain
- 3 Hexagon of extra length permits easy and positive application of spark plug wrench
- 4 High Temperature Fins—Patented carbon-proof Porcelain
- 5 Drip electrode forms natural Oil Drain

Made in both one and two-piece design.

DEALERS
who carry AC
products can
build a profit-
able business.

The demand is
assured because
of their use as
car equipment.

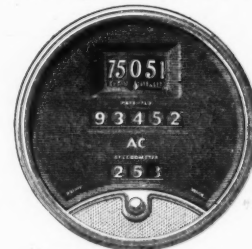
They are backed
by strong adver-
tising.

AC Spark Plug Company, FLINT, Michigan
Makers of AC Spark Plugs—AC Speedometers—AC Air Cleaners

AC-SPHINX
Birmingham
ENGLAND

AC-OLEO
Levallois-Perret
FRANCE

AC Speedometers



The Model for Fords

There is proof of the quality of AC Speedometers in the fact that they are used as original factory equipment on Buick, Cadillac, Chandler, Chevrolet, Chrysler, Gray, Oakland, Oldsmobile, Peerless and G.M.C. trucks.

The AC Speedometer for Fords is of the same quality as furnished the above manufacturers for their original factory equipment.

The AC Direct Drive does away with the troublesome swivel joint and insures continuously satisfactory service.

Packed complete with all attachments.

AC Air Cleaners



The AC Air Cleaner prevents dust from entering the motor through the air intake of the carburetor.

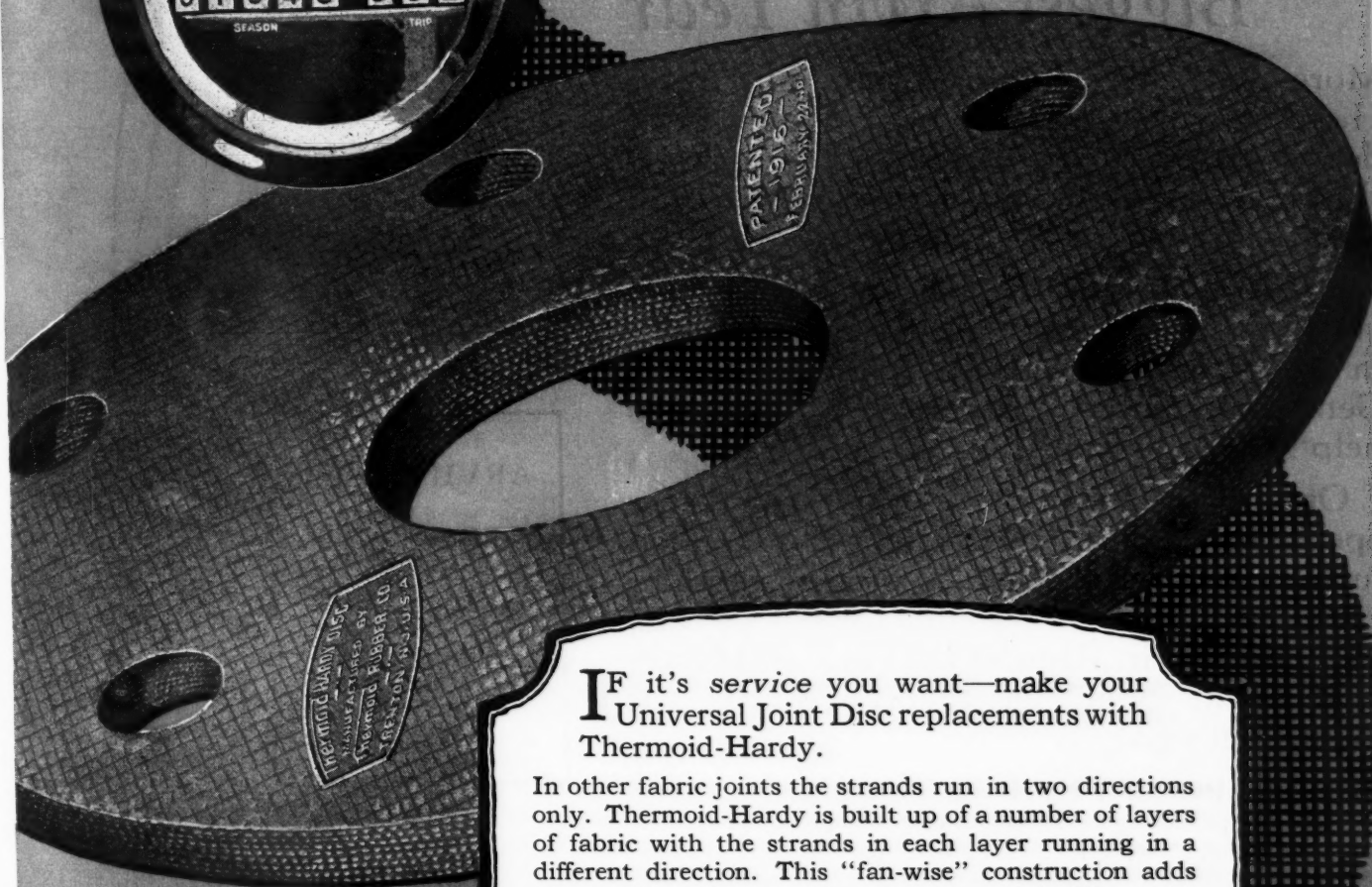
Dust is the same as an abrasive compound and causes excessive wear on all the motor's moving parts.

AC Air Cleaners are original factory equipment on the 1926 models of Nash, Buick and Oakland.

Installation is easy as it connects directly to the carburetor. Once installed it requires no attention as there are no moving parts to get out of order. Packed complete with all attachments.

Models are now ready for Chevrolet, Chrysler Four, Dodge Bros., Ford, Maxwell, Oldsmobile, Star, Studebaker, as well as the 1925 and earlier models of Buick, Nash and Oakland.

OUTWEARS METAL



**OUTWEARS METAL
REQUIRES
NO OIL OR CARE**

IF it's service you want—make your Universal Joint Disc replacements with Thermoid-Hardy.

In other fabric joints the strands run in two directions only. Thermoid-Hardy is built up of a number of layers of fabric with the strands in each layer running in a different direction. This "fan-wise" construction adds immensely to the strength and trueness of the Thermoid-Hardy.

The name "Thermoid-Hardy" stamped on each disc is your protection against fabric joints that merely look like the genuine.

THERMOID RUBBER COMPANY

Factories and Main Offices

TRENTON, N. J.

Makers of Thermoid Brake Lining, Thermoid Transmission Lining and Mechanical Rubber Goods

Thermoid- Hardy Universal Joint

ARVIN HEATER

This Will Be Your Biggest Arvin Year

More than three hundred thousand Arvin Heaters were sold last year—yet lots of dealers couldn't get all they could sell. So this year we're making more Arvins than ever before.

And this month, the biggest national advertising campaign in Arvin history starts in the Saturday Evening Post, the Country Gentleman, and the American Magazine, to help make this your biggest Arvin year.

Order your Arvin stock now. The Arvin Special for Ford and Chevrolet which created such a sensation last year is going bigger than ever—and it is now available for Dodge cars, also—the Arvin Regular for Ford and Overland. Your jobber has them. You can sell them. Let's go!

INDIANAPOLIS PUMP & TUBE COMPANY

General and Sales Offices—INDIANAPOLIS

Pump and Tube Div.
Greenwood, Ind.

Dan Patch Coaster Wagon Div.
Connersville, Ind.

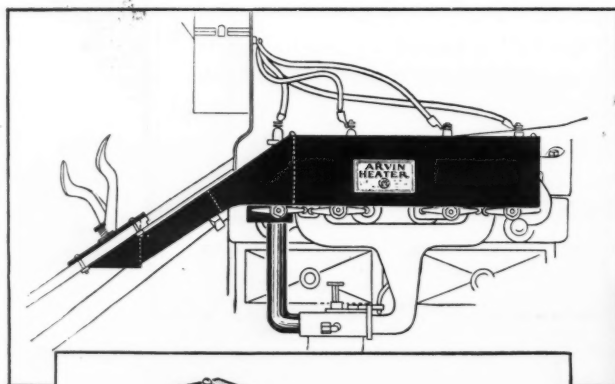
Arvin Heater Div.
Columbus, Ind.

The Low Cost of ARVIN HEAT

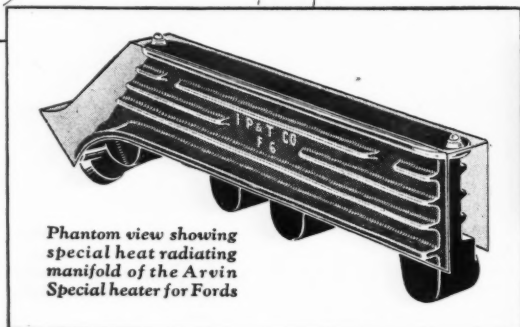
Special Type for
FORD . . . \$6.00
CHEVROLET . . \$6.50
DODGE . . . \$9.00

Also—
Regular Type for
FORD . . . \$1.75
OVERLAND . . \$3.00

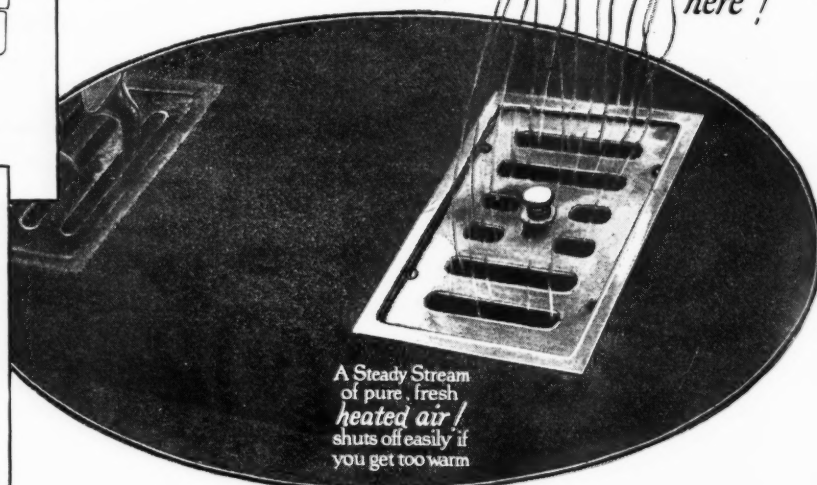
Prices Slightly Higher in
Canada and Far West.



At left is the Arvin Special heater for Fords installed—a typical Arvin Special installation



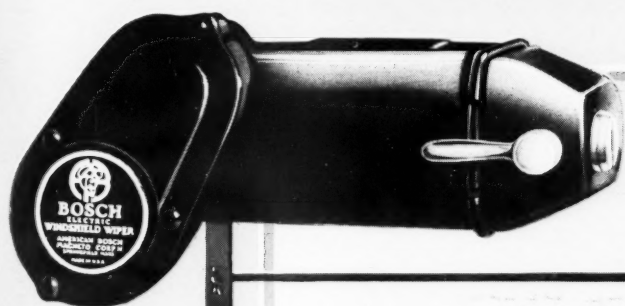
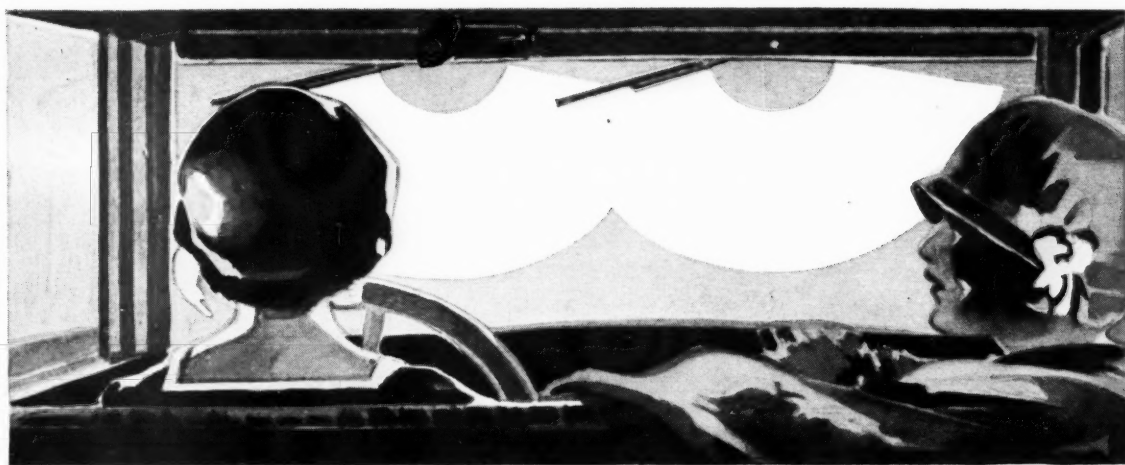
Phantom view showing special heat radiating manifold of the Arvin Special heater for Fords



A Steady Stream of pure, fresh heated air! shuts off easily if you get too warm

✓ Heat?
Just hold
your hand
here!

Double Vision



*Vision for Both
Safety for ALL*

"AS NECESSARY
AS BRAKES"

Only Bosch power enables you to get double vision. With the two wiping arms, both front seat occupants see *all* the road ahead. Sell the Bosch Electric Wiper and Tandem Attachment.

Windshield Wiper \$9.50 Tandem Attachment \$1.75

AMERICAN BOSCH MAGNETO CORP., Springfield, Mass.
Branches: New York Chicago Detroit San Francisco



TRADE MARK

B O S C H

ELECTRIC

Windshield Wiper and Tandem Attachment

SUPERIOR

features

OF TYPE 600

Bosch Ignition for Fords

Full automatic spark advance — eliminates the Ford spark lever.

Timed at the head — makes installation and timing easy.

Uses standard Bosch Interrupter — insures perfect timing of the spark, and long wear.

Employs only one coil, without vibrator — no coil adjustment needed.

Absolutely waterproof and dependable; backed by the Bosch guarantee.

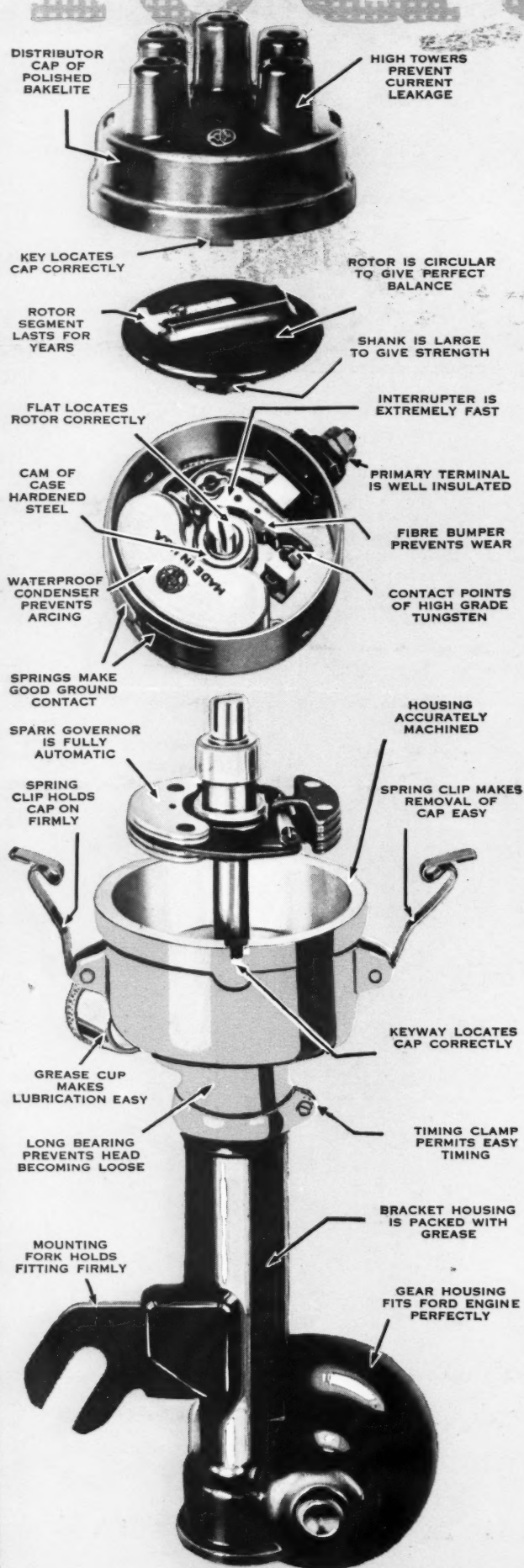
Attractive appearance — easy to display and sell.

Price \$12.75 (\$17.50 in Canada)

American Bosch Magneto Corp.

Main Office and Works: Springfield, Mass.

Branches: New York Chicago Detroit San Francisco





A New Light on Your Profits

Your service men can't give service without portable lights. Fumbling in the dark is not service.

But if there's one thing worse than fumbling in the dark without a portable it's fumbling in the dark *with* a portable that won't work.

The Packard Port-O-Lite is always in order. The connections stay connected because they are put together right. The cord can't wear out because it is Packard Flex-O-Cord — non-kinking, built for rough service.

Put in Port-O-Lites and lighten the expense of service.

Sell Port-O-Lites to your customers for the home garage. Put up in attractive packages all complete, ready to plug in. There's a good profit in them.

And don't forget to rewire your used cars with Packard Cable.

Phone your jobber now and order a stock of Port-O-Lites.



The Packard Electric Company
WARREN, OHIO

Port-O-Lite



There Is No Substitute for Bunting Phosphor Bronze

Always remember that a Bunting Bushing Bearing is a piece of Bunting Phosphor Bronze which has been sand cast, machined to dimensions and finally subjected to a patented process which intensifies and hardens the metal on the wearing surface. No bushing made of brass, steel or inferior metals is in any way comparable with it.

Bunting Piston Pin Bushings, Spring Eye and Shackle Bolt Bushings, Steering Knuckle and Tie Rod Bushings are made for replacement in all popular automotive vehicles, and distributed by leading supply sources everywhere.

*The finest machinery
made runs on Bunting
Bushing Bearings.*



*Any car is worthy of the
best bushing obtainable.*

THE BUNTING BRASS & BRONZE CO.
TOLEDO, OHIO

BRANCHES AND WAREHOUSES AT

NEW YORK	CHICAGO	SAN FRANCISCO
245 West 54th St.	2015 S. Michigan Ave.	198 Second St.
Columbus 7528	Calumet 6850-6851	Douglas 6245
CLEVELAND	PHILADELPHIA	BOSTON
710 St. Clair Ave., N. E.	1330 Arch St.	36 Oliver St.
Main 5991	Spruce 5296	Main 8488



BUNTING

PHOSPHOR BRONZE

BUSHING BEARINGS

PATENTED



This Broadcasts the Biggest Fact in the whole Field of Radio!

The Most Complete Radio Line Under a Single Trade Mark

Ten Styles of Receiving Sets
—Only Successful Circuits—
\$50—\$460

Nine Models of Reproducers—
Horn, Cabinet, Pedestal: Lamp
and Hangers—\$18—\$100

All Types and Shapes of Bat-
teries—Multi-Cell Dry "A"—
"B" and "C" as well as Storage
"A" Batteries—\$.60—\$23.50

—and a Complete Line of Ac-
cessories—each and every item in
the line the very best
obtainable



TYPE 300

Exquisitely designed mahogany
console cabinet. Five tubes. Sliding
controls on illuminated panel.
Large battery compartments. "B"
battery eliminator when used
makes outside antenna and ground
unnecessary. Without equipment . . . \$300

Model XII Reproducer \$35 addi-
tional.

Music Master Reproducer Model
XIII, Drum Type. Specially
designed Art Model, illustrated.
Price \$40.

IF OUR merchandise wasn't better than other "bests"; if our models became unsalable through changes or price cuts; if our prices were not attractive; if our merchandising policy wasn't sound—somebody—somewhere—would have lost money on MUSIC MASTER.

But no one has ever lost money on MUSIC MASTER! No more absolute proof can be offered to convince you that our quality satisfies; that our merchandise is *always* an asset; that our prices are attractive; and that our merchandising policy is sound.

Ninety-three million Americans are reading the MUSIC MASTER Story, and volume sales prove that MUSIC MASTER'S great campaign of National Advertising is effective.

Our story is the greatest *true* story ever told in radio. Make it *your* story. Get the MUSIC MASTER Sales Franchise for your store—if you are in open territory.

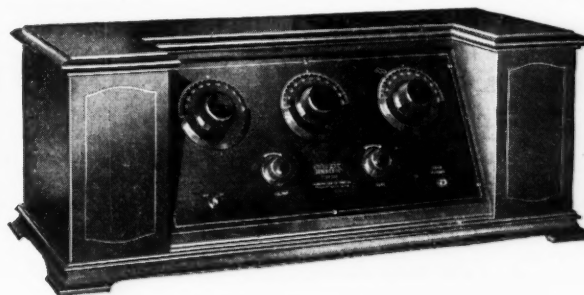
These franchises are granted only to dealers of standing who have the energy to get the most out of their territories.

Write or wire us, or get in touch with our nearest authorized distributor.

Music Master Corporation

Makers and Distributors of High-Grade Radio Apparatus
128-130 N. Tenth Street

CHICAGO NEW YORK PHILADELPHIA PITTSBURGH MONTREAL
Canadian Factory: Kitchener, Ontario



TYPE 100

Five Tubes. Resonant reproduction, excep-
tional range. Massive mahogany console cabi-
net. "B" battery compartments in . . . \$100
Without equipment . . .

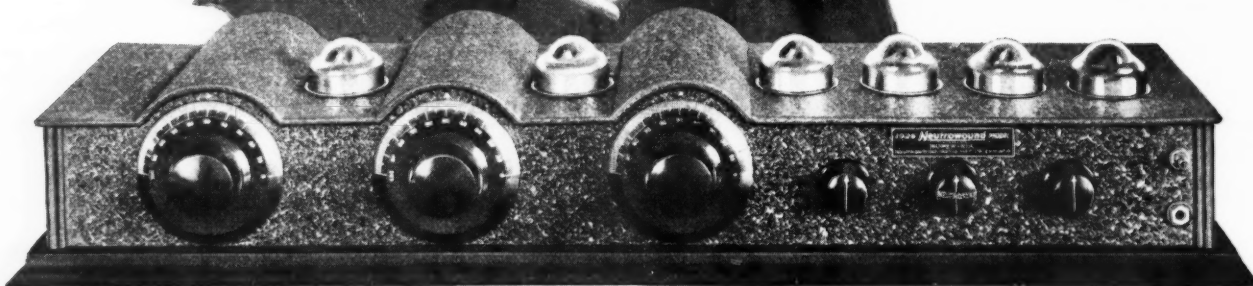
Neutrowound

REG. U.S. PAT. OFF.

Price
\$85⁰⁰

Without Tubes, Batteries, Etc. West of the Rocky Mountains, \$90. In Canada, \$115

All The
Radio
You Can Buy
At Any
Price



Manufactured under our own patents and under a Reciprocal License from the Navy Department of the United States Government

1926 Model—with S-L-F Variable Condensers Will Tune All Stations from 200 to 550 Meters

A Radio Receiving Set that is equipped with "old-fashioned" condensers cannot tune in stations below 250 meters and therefore, is obsolete because many of the biggest high-power stations in America broadcast below 250 meters.

Neutrowound Straight Line Frequency Condensers are designed to give absolutely straight line frequency dial calibration, preventing the piling up or the crowding of stations broadcasting on low wave lengths.

There is no crowding of stations on the lower range with this method, and it is possible to tune right on down to 200 meters with ideal tuning conditions.

In the Neutrowound 6 Tube Set you will find that perfect balance between selectivity and volume, which is absolutely necessary to meet the various radio conditions—extreme selectivity and concert volume from distant stations loud enough so that your family and friends can all enjoy the programs broadcast from distant stations—yet it can be tuned to a whisper.

The Neutrowound 6 Tube Set is made in but one model—a precision instrument of the finest quality, handsomely finished in crystalline black and nickel.

In this one model is contained all the "Radio" that it is possible to buy at any price.

BROADCASTING STATION WOK

The Neutrowound Radio Mfg. Co. owns and operates station WOK broadcasting on 217.3 meters

Makes "Dull" Months Pay "Big" Profits

Perhaps you are one of the many Automotive Dealers whose profits are good during six months of the year—and very unsatisfactory during the other six months. Thousands of Automotive Dealers are in that position. Their expenses and overhead run right on every month—but their profits drop off, during the dull months.

You can, not only even up your profits for the year, by becoming a Distributor of the Neutrowound Radio Receiving Set—but can increase your profits—and make more money. Mail Coupon NOW.

NEUTROWOUND RADIO MFG. CO.

Radio Division: Advance Automobile Accessories Corporation
1721 Prairie Ave., Dept. 1026, Chicago, Ill.

Dealer's Coupon

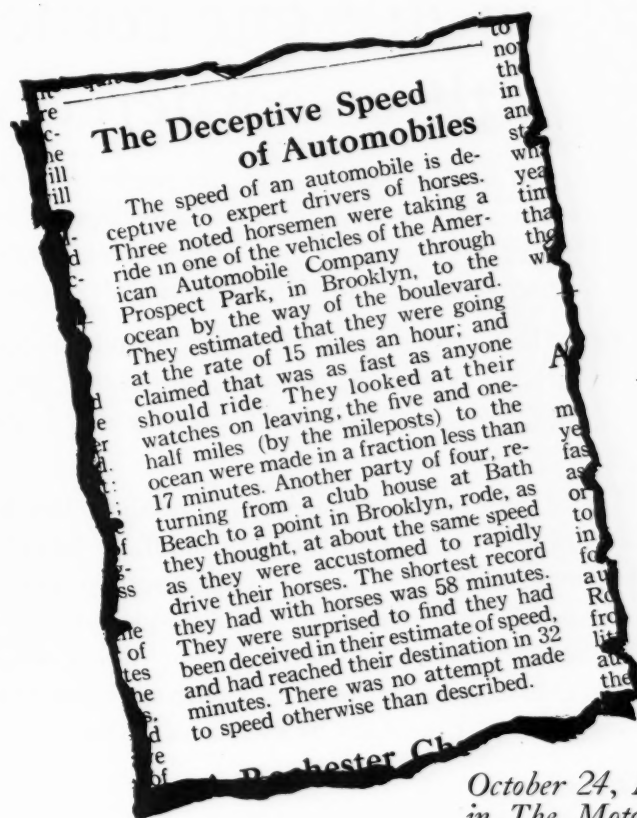
NEUTROWOUND RADIO MFG. CO.
1721 Prairie Ave., Dept. 1026, Chicago, Ill.
Send complete information, Dealers' Discounts and Neutrowound Sales Plan.

Name.....

Street.....

City..... State.....

5½ Miles in 17 Minutes!



Those were the days when you wondered whether it would run. Now they are surprised if the car ever stops.

Automobiles have become so very good within twenty-five years, largely because Timken Tapered Roller Bearings carry radial, thrust and shock loads in simple, lighter mountings of greater strength.

Otherwise the use of Timkens could never have become so nearly universal. 83% of all motor vehicle makers equip with Timkens. 100% of the dealers in Timken-equipped cars know how favorably Timken Tapered Roller Bearings enter into sales.

THE TIMKEN ROLLER BEARING CO., CANTON, OHIO

TIMKEN Tapered Roller BEARINGS

90,000,000

*in just one corner of your
three-cornered market!*

Of course you realize the profit opportunity of the other two corners—the five million passenger cars priced above \$1,000, and the big truck, bus, and taxicab market. That they are all good prospects for Thompson Valves goes without saying.

But have you thought much about the passenger cars priced *below* \$1,000? Over 90,000,000 valves are bobbing up and down in their engines every day! And over 20,000,000 are replaced every year!

Too many garages and dealers think: "These folks won't buy anything but cheap stuff." Maybe—and again, maybe not. Perhaps a very satisfactory per cent of those owners would be interested in a good valve, *if only somebody told them how it would affect their engines*. There's a real chance here for the man who believes that *selling pays in the garage business* as much as it does in any other.

Thompson

Silcrome Valves

Valves

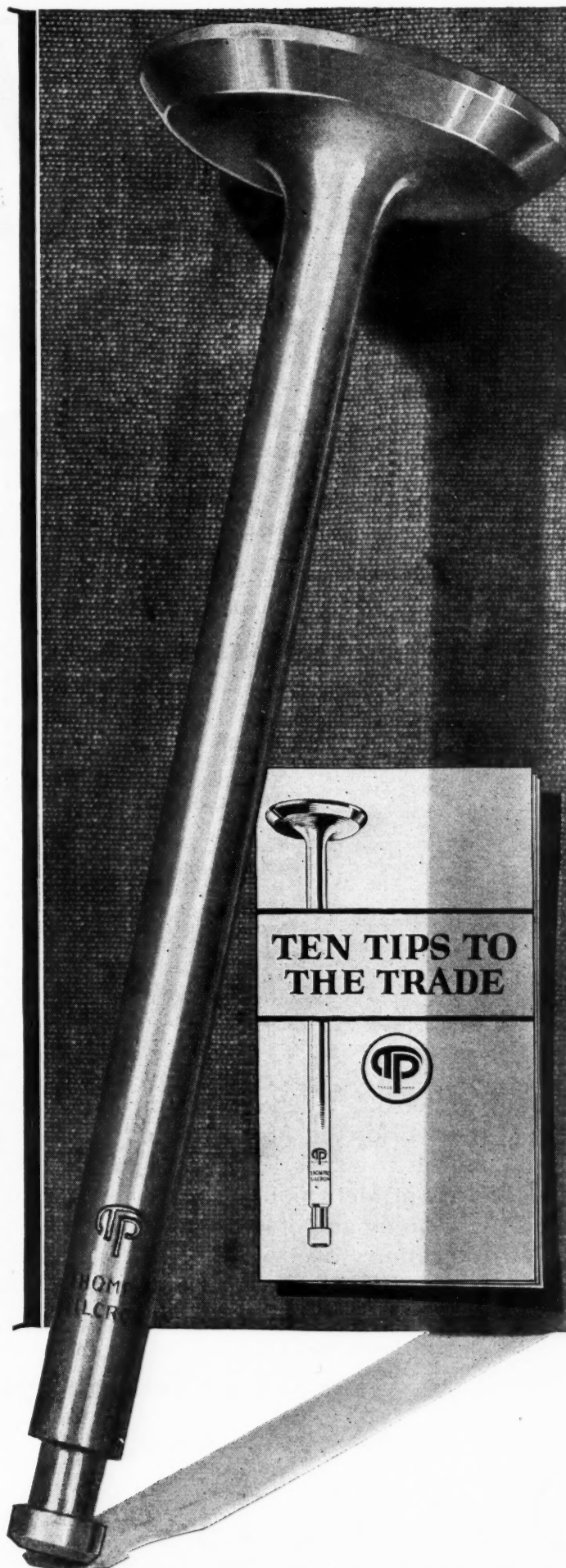
No matter what a man pays for his car, he can afford Thompson Valves. As to the reason—ask us for a copy of "Ten Tips to the Trade," read it, and then try it on the next twenty owners of cars priced below \$1,000 whom you meet—*wherever you meet them.*

THOMPSON PRODUCTS, INC.
CLEVELAND

Also manufacturers of King Bolts, Tie-Rod Bolts, Spring Bolts, Bushings, Tappets and Starting Cranks

Export Department:
130 West 42d St., New York, U. S. A.

Cable Address:
"THOMPRO—NEW YORK"



Outselling

in the World's most exacting market !

The following new car registrations in Detroit and Wayne County for August tell their own impressive story:

Buick	1151
Essex	463
OAKLAND SIX	322
Hudson	305
Chrysler Four	286
Nash	247
Dodge	236
Chrysler Six	191
Studebaker	184
Overland	114
Jewett	101
Cadillac	100
Oldsmobile	94
Packard	80
Hupmobile	51
Willys-Knight	39
Lincoln	33
Flint	32
Rickenbacker	31
Reo	22

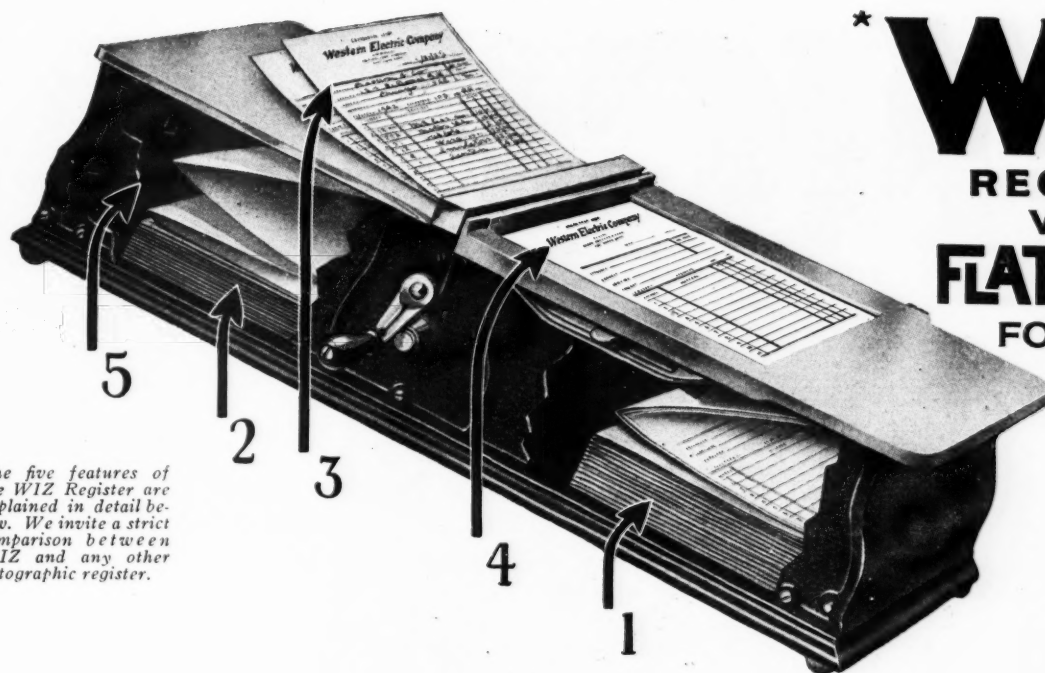
(Exclusive of Chevrolet and Ford)

In Detroit, the best informed and most exacting motor car market in the world, the new Oakland Six has passed car after car in its steady march towards leadership in its field. This tremendous popularity in Metropolitan Detroit is typical of the manner in which Oakland is winning and holding good will everywhere. Retail deliveries for August the country over were 78% ahead of the same period last year and thousands of orders for August delivery could not be filled until September.

The New Oakland Six embodies more than 100 important improvements including Air Cleaner, Oil Filter, 4-Wheel Brake Refinements and the Harmonic Balancer

—Yet prices are \$70 to \$350 lower

WINNING AND HOLDING GOOD WILL
OAKLAND SIX
 PRODUCT OF GENERAL MOTORS



The five features of the WIZ Register are explained in detail below. We invite a strict comparison between WIZ and any other autographic register.

★ WIZ

REGISTERS WITH FLATPAKIT FORMS

Five Features make WIZ REGISTERS★ do their work Easier ~ Quicker ~ Better

Wherever any record is kept by filling in a printed form with handwriting and which requires carbon copies, there you will find that the WIZ Registers will do the work quicker, easier and better than any other method.

The WIZ Register, with its Flatpakit has changed the whole autographic register field. It is like comparing the modern breech loading gun to the antiquated muzzle loader. No matter how many forms are required, WIZ used but one "Flatpakit" instead of two or more rolls. It can be loaded in half a minute. It retains under lock and key a continuous, consecutively numbered strip of copies folded zig-zag—a complete record in a neat bundle, requiring no binder or other filing device.

These five WIZ Features give you maximum efficiency in your record keeping.

1. The WIZ "Flatpakit" faster load. Made up of two, three or more printed slips

interleaved and folded zig-zag. Each form may be on a different colored paper.

2. One or more strips of forms refolds automatically into the locked compartment. Auditing, or reference to any individual form is as easy as turning the page of a book. Without the compartment, WIZ issues all copies of the transaction.
3. WIZ Slips are issued from the register flat. They file flat and always lie flat. They never curl as with roll registers.
4. WIZ always keeps the forms in alignment.
5. The locked compartment protects a complete record of every transaction.

Upon request (use coupon below) we will be glad to tell you specifically how WIZ Registers can help keep records better in your particular line of business.

R-301



Losses and waste stop when original entries are right. Amsaboco Products make and keep them right most quickly and economically. Made by the pioneer manufacturer of original entry systems, Amsaboco Products are backed by more than 40 years' experience and by the services of the largest force of trained representatives in the field.

© ASBCo.

American Sales Book Company, Limited
Dept. 728-10, Elmira, New York

Please give me more information and how it can be applied to the system checked below.

- ☐ Simple Delivery Records
- ☐ Cash Sales
- ☐ Credit Sales
- ☐ Quick Collections
- ☐ Combining Two Ideas in One Set of Forms
- ☐ A System for.....

(Pin to your letterhead and mail)

LINCOLN



Lincolns Acknowledge No Superior

1. Lightning-quick in action.
2. Sturdy, simple construction.
3. Easy to install.
4. No constant servicing or adjusting.
5. The oval shaped friction drum doubles the life of the inner springs.

The Simplicity of the Lincoln Is Amazing

You will admire its sturdy construction and the lack of complicated adjustments.

You will appreciate the ease of installation that saves you time—money—and trouble.

The working model you display on your counter is an eye-opener to the car owner. He can easily see how friction does 99% of the work and doubles the life of the inner springs. Nine times out of ten he will sell himself, for even the inexperienced motorist can see the superiority of the Lincoln.

It is easy to understand why Lincoln Dealers are making money.

Lincoln Balloon Shock Absorbers are nationally distributed by over 150 jobbers. Sold by reliable dealers everywhere. Write for information regarding the Lincoln Sales possibilities in your territory.

For All Cars—\$15 to \$40

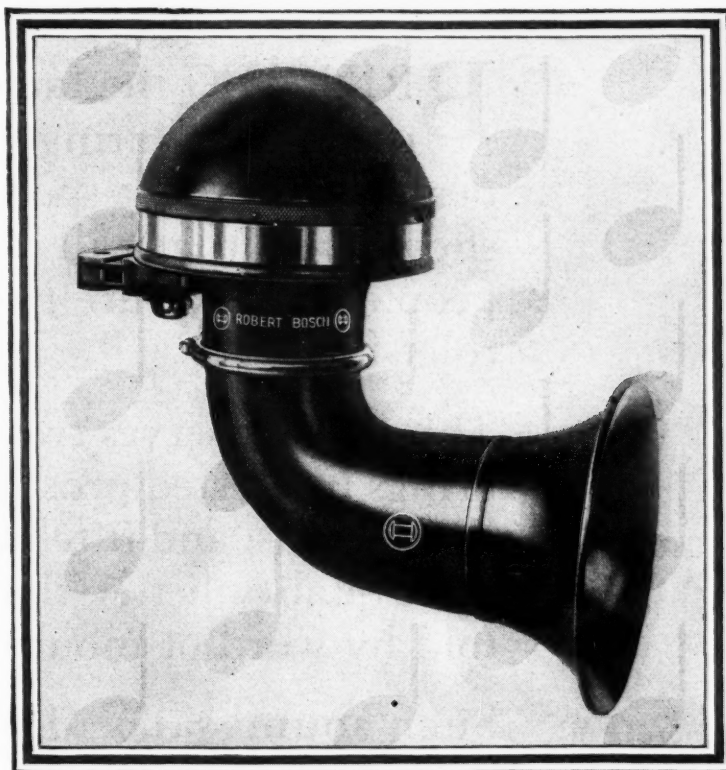
LINCOLN PRODUCTS COMPANY
 2649 N. Kildare Avenue Chicago, Illinois
 Canadian Factory
 LINCOLN PRODUCTS CO., Ltd., Montreal, Canada

BALLOON SHOCK ABSORBERS

The horn they're all talking about



Its success demonstrates the market for products of Original Bosch quality



THE VOICE OF THE FINE CAR

EVERYWHERE you hear it now: the resonant, staccato note of the Original Bosch Horn. No automobile accessory in a long time has taken so well with motor-car owners.

Why aren't you sharing in the profits of this remarkable success? Perhaps you have been tempted by one of the numerous imitations of this Horn. But remember:

There is more money for the dealer in selling an Original Bosch Horn than there is in selling an imitation. And every horn sale leads to sales of other Original Bosch products.

To your purchaser of an Original Bosch Horn, you can

offer Original Bosch spark plugs, generators, spot lights, hydrometers, etc., each product of the same masterly workmanship that characterizes the Horn. The Original Bosch line is being increased by still other products so that it is becoming always more attractive from the dealer's standpoint.

Write us

We invite correspondence from dealers. Why not get some of the Christmas sales that the horn is sure to produce? Address: Robert Bosch Magneto Co., 109 West 64th Street, New York. Chicago branch: 1302 South Wabash Avenue.



This trademark and the full name "Robert Bosch" appear on every ORIGINAL BOSCH product. They are your guaranty of genuine ORIGINAL BOSCH quality as known the world over since 1887

The Original Bosch

ROBERT • BOSCH • MAGNETO • COMPANY • INC.

No connection whatsoever with the American Bosch Magneto Corporation

features that sell
the new Chevrolet

BRINGING the factory to dealers' customers—during October, Chevrolet dealers will have a special exhibit for their showrooms that will enable them to take people for a picture trip through a Chevrolet factory.

This exhibit serves two good purposes. It brings interested prospects into Chevrolet showrooms; and it tells the story of Chevrolet quality better than it could ever be told by word of mouth.

Such sound sales ideas help Chevrolet dealers to make a profit every month of the year.

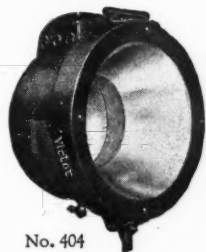
CHEVROLET MOTOR COMPANY, DETROIT, MICH.
Division of General Motors Corporation



for Economical Transportation

QUALITY AT LOW COST

"A LAMP FOR EVERY AUTOMOTIVE NEED"



No. 404

MOGUL

Best gas truck lamp built. A heavy duty lamp that will withstand the most severe service. Equipped with Mangin mirror reflector and deep bezel reflector. Prop centers 8½". Burner ⅝". Plain lens.

MONITOR

A 10" diameter gas headlamp built for hard service. Prop centers 8½". Burner ⅝". Plain lens. Equipped with VICTOR mirror reflector (6" diameter arc measurement). Door is hinged at top and will not jar open.



No. 403



No. 400

MONARCH

An 8" diameter gas headlamp built for hard service. Prop centers 7". Burner ⅝". Plain lens. Equipped with VICTOR mirror reflector (6" diameter arc measurement). Door is hinged at top and will not jar open.

MOLOCH

Similar to standard No. 400, except has bracket for mounting on radiator shell or other vertical surface.



No. 400-D



No. 142

SEARCHLAMP

Standard No. 403 gas headlamp mounted on the No. 8½-F swivel searchlamp bracket. Adjustable to any direction. For mounting on fender or other horizontal surface. Also made for mounting on dash or other vertical surface.



The Victor Line

Order from your Jobber. Write us direct for new catalog.

The Bright Lights
of Safety
for Trucks that
Speed in the
Night

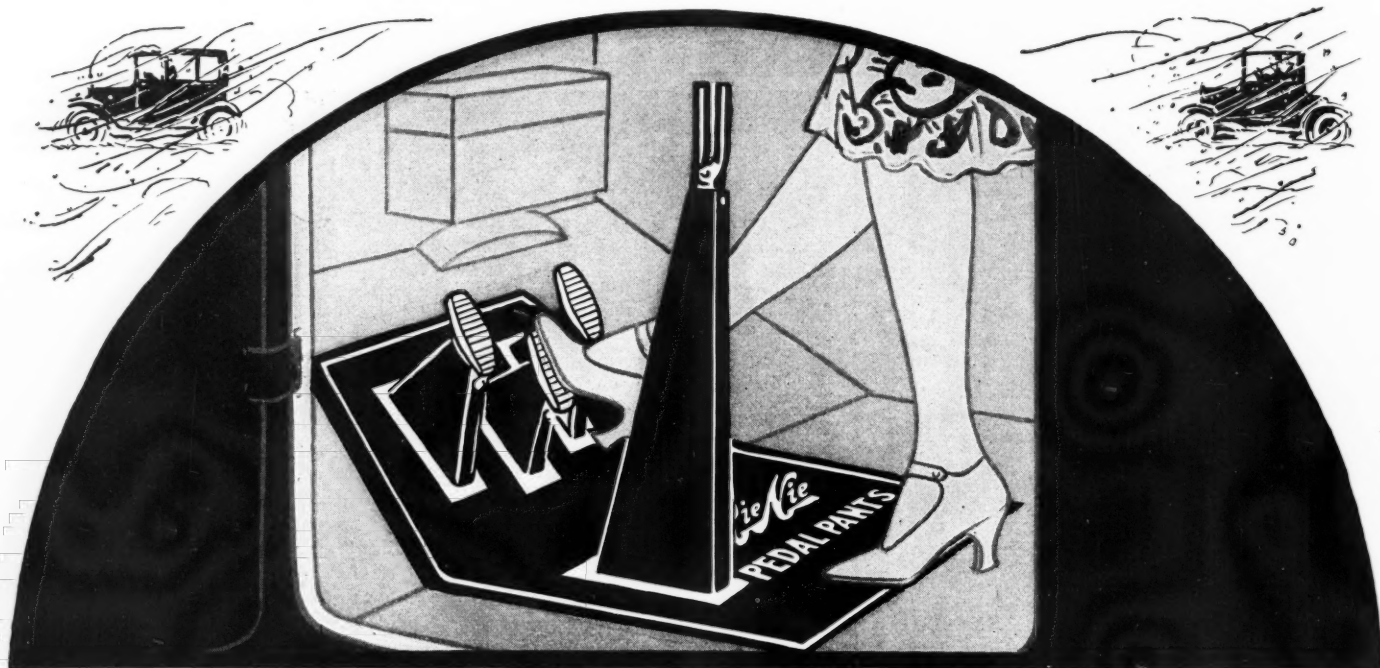
Victor
GAS
HEADLAMPS
for
Trucks

"The LINE FOR EVERY AUTOMOTIVE DEALER"

The CINCINNATI VICTOR CO.

716 Reading Road

CINCINNATI, OHIO



Rie NIE PEDAL PANTS

Automotive Products

All In One Dressing
 Aluminum Enamel
 Battery Paint
 Bearing Blue
 Blue Tip Blowout Patch
 Clutch and Brake Compound
 Enamel (Air Drying)
 Enamel (Cylinder)
 Fan Belts
 Friction Tape
 Gasket Cement
 Graphite
 Leather Dressing
 Lucky Star Casing Patch
 Metal Polish and Nickel Polish
 Patch
 Pedal Pants
 Polish—Auto Body
 Radiator Cement
 Radiator Hose
 Red Tip Blowout Patch
 Rim Paint
 Rubber Cement
 Rubber Filler and Cement
 Shellac (Gasket)
 Spring Lubricant
 Superior Casing Patch
 White Tip Blowout Patch
 Tire Mica and Tire Talc
 Tire Paints
 Valve Grinding Compound
 Varnish (Clear Auto)

*For Fords, Chevrolets, Grays,
Dodges, Stars, Overland Fours*

SNAPPY SELLERS

WIDE AWAKE DEALERS are snapping up Rie NIE Pedal Pants in preparation for rapid selling with the first chill wind. When a motorist sees Pedal Pants displayed on your counter or in your window he sees at a glance that *here is the accessory he has been looking for.*

There is a real need for Pedal Pants in your territory and every auto driver wants them. Many of your customers are stuffing newspapers and cotton waste in floor openings around brake and pedals. Sell them Rie NIE Pedal Pants and

Make Money for Yourself!

Considering the tremendous comfort a motorist receives from having his car equipped with Rie NIE Pedal Pants, the price is very low—with a large margin of profit to you.

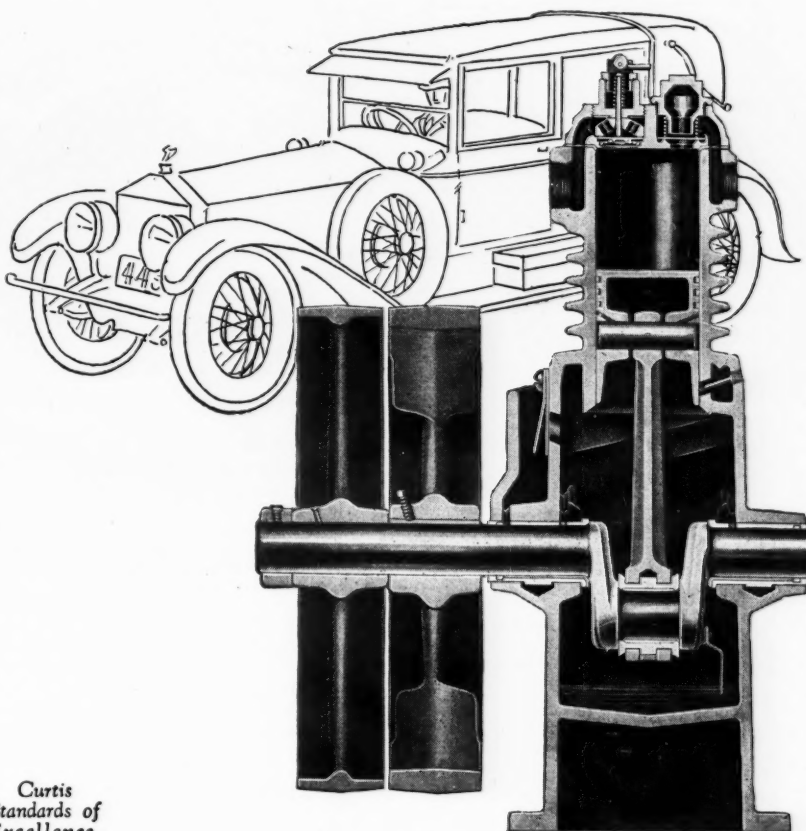
Ask Your Jobber about Pedal Pants Today!

DURKEE-ATWOOD
MINNEAPOLIS, U.S.A. ©

Manufacturers of Quality Automotive Products That Sell Since 1910

CURTIS

1854 - Seventy one years - 1925



Curtis
Standards of
Excellence.

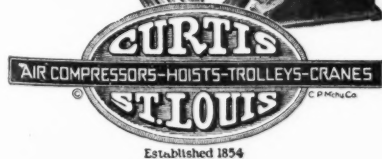
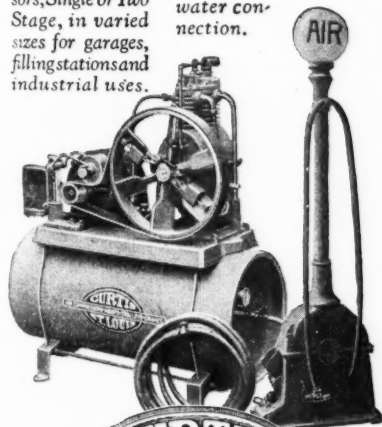
Building an air compressor to the finest automobile standards

is quite a different proposition from a hit-or-miss machine shop job. Every Curtis Compressor is Curtis made right from the raw materials of our own foundries, and every part is made with the precision that only a tremendous investment in machinery, jigs and fixtures makes possible. Forged crank shafts ground, pistons, rings and pins ground, all other wearing parts

machined and held to the rigid tolerance of the finest automobile practice—these are examples of Curtis standards of excellence. Such standards are impossible without tremendous manufacturing equipment. Such equipment is impossible without volume production. As the leading automotive compressor company, Curtis has both.

Curtis Compressors, Single or Two Stage, in varied sizes for garages, filling stations and industrial uses.

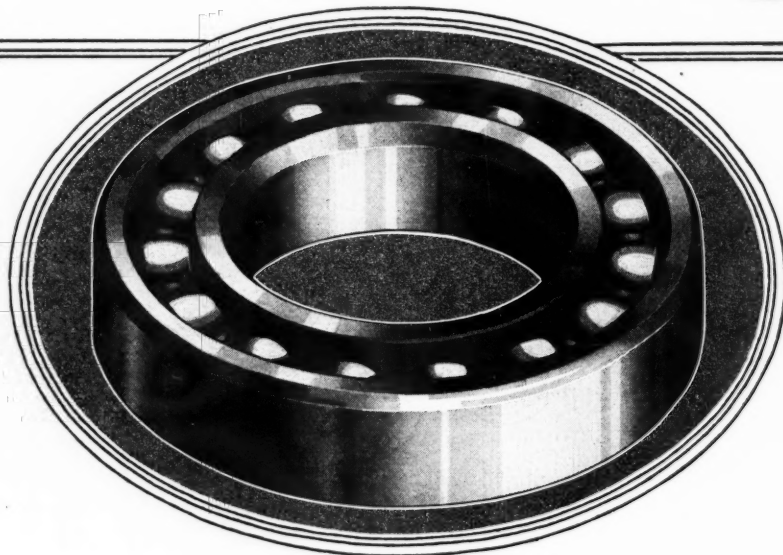
Curtis Air Stand with or without water connection.



Anyone familiar with Curtis construction will recognize that such quality compressors could never be sold at such popular prices except for tremendous output.

CURTIS Pneumatic Machinery Co.
1527 Kienlen Ave., ST. LOUIS, MO.
Branch Office: 630-H Hudson Terminal, New York
Gentlemen—Please send me full details on Curtis Air Compressor, your proposition and prices
Name.....
Address.....
Jobber's Name.....
Address.....
(Ask about Curtis Air Mist Car Washing System)

New Departure Ball Bearings



Racing O. K.'s the New Departure

New Departure Ball Bearings have been practically the exclusive choice of racing car builders and drivers for the past six seasons. This series of advertisements undertakes to tell you the underlying reason for this unanimous judgment of racing car designers and drivers.

Only in ball bearings do the rolling elements travel under load about a true axis **without** guidance by the separator.

Furthermore, during the periods when the ball is not carrying load, it may change its direction slightly without strain upon the separator and thus present a new load-carrying circumference, avoiding fatigue.

These two points, with the use of high carbon chrome alloy steels and the exquisite precision of workmanship, explain why New Departure Ball Bearings are capable of maintaining high speeds for long periods, and with minimum friction loss, heat and wear. Hence the practically exclusive use of New Departure Ball Bearings in racing cars.

Reason No. 3

The New Departure Manufacturing Company
Detroit — Bristol, Connecticut — Chicago

FACTS ABOUT A FAMOUS FAMILY

The greatest values in automobile history

GENERAL MOTORS believes that Chevrolet, Oldsmobile, Oakland, Buick and Cadillac now offer the greatest values in automobile history.

Important improvements in chassis construction add to simplicity and performance. Refinements in body designs increase attractiveness and comfort.

Every change has been made with quality as the prime consideration. Quality is the first law of General Motors. Enormous sums have been invested in more intensive engineering, in labor-saving methods, in reconstruction—wherever a better result might be achieved.

Naturally, large economies are attainable in such an organization as General Motors. It enjoys every advantage of quantity production; it sells in every market of the world. General Motors is passing these economies on to the purchaser. This makes possible the extraordinary values now offered.

The public may depend upon these values. Every car is a car of quality.

GENERAL MOTORS

BUICK · CADILLAC · CHEVROLET · OAKLAND
OLDSMOBILE · GMC TRUCKS

General Motors automobiles may be purchased on the GMAC Time Payment Plan
Always lowest, GMAC rates are now lower still

Writers who mould automotive thought

He Delves in Grease to Get His Facts



B. M. IKERT
Technical Editor
MOTOR AGE

When B. M. Ikert, technical editor of MOTOR AGE, writes a service story he doesn't sit back in an easy chair and theorize on how it should be done. That isn't his way.

His method is to go to a modern service station, don overalls, get down in the grease and work on the job himself. Then, when he writes the story, it is a plain, practical description of how the job is done. Any good workman can understand it and follow the procedure without difficulty.

That is the secret of Ikert's popularity with MOTOR AGE readers. When they see a story by him they know it is going to be practical and helpful and not a mass of theories. Instinctively they feel it is by a man who knows from practical experience. His articles have done much to give MOTOR AGE its splendid reputation as a service publication.

Mr. Ikert is a thorough mechanic as well as a writer. He comes by this ability naturally. All his forefathers were skilled shipbuilders. His first job—during vacation in his school days—was in a machine shop, and he has continued to be interested in this kind of work ever since. For years he has maintained a small machine shop of his own where he does much experimental work.

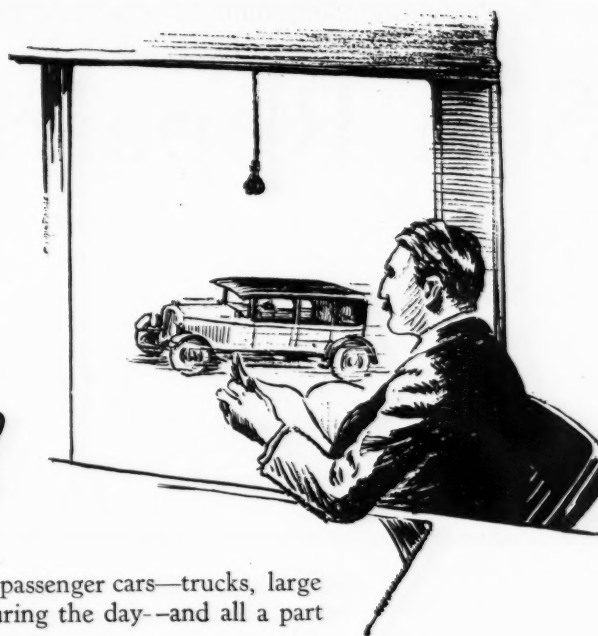
Evidence of Mr. Ikert's mechanical ability is found in the fact that he has designed and built a speed boat and two automobiles for his own use and a number of models of mechanical devices.

For six years Mr. Ikert was connected with Popular Mechanics, after which he went with Root's Motor Digest. Later he became a free lance writer on technical subjects, finally joining the staff of MOTOR AGE as technical editor—a position he has held ever since with remarkable success.

This is the ninth of a series of announcements dealing with the editorial strength of Chilton Class Journal publications. Each issue will carry a brief sketch of an editor or principal contributor to the group.

The purpose of this series is to place before you the facts about our editorial work so you may know its scope and magnitude and the ability, experience and attainments of the men whose articles you read in these publications.

Look out of the window now!



WATCH the automobiles go by—passenger cars—trucks, large and small. Hundreds of them during the day—and all a part of the big prospect list for the Luburetor.

Imagine a prospect list of 16,000,000 names—a list that is growing every hour. Consider the number of passenger cars, trucks and tractors in your community.

There is your picture of the enormous Luburetor market—a market limited only by the number of motor vehicles and tractors manufactured. Every one within reach is **your** prospect, every one offers an opportunity for a profitable sale.

Freedom from valve trouble and excessive cylinder wear; increased compression, smoother operation, greater fuel economy—these are but a few of the benefits of the Luburetor. It fills a recognized and long felt need for adequate lubrication of the real danger zone in the motor, the upper end.

Established demand—non-competitive—priced within the means of every owner—compact stock of but few models—small investment—new and intensive consumer advertising assistance—all these contribute to the attractiveness of a Luburetor dealership. Send for complete information in today's mail.

The Luburetor

Provides adequate lubrication to the real danger zone in every motor. Automatic in operation, requires no service. Controlled by vacuum which accurately regulates oil feed in correct proportion to the load or duty of the motor. Puts positive lubrication where the wear is greatest. Fresh lubrication at each intake stroke. A basic improvement, far-reaching in its benefits.



The Luburetor Company
Columbus, Ohio

The Luburetor

TRADE MARK REG.

Pin this Coupon to Your Letterhead

or fill it out and mail it in today. We will send you a complete description of the Luburetor—what it does—what it costs—discounts—and how our intensive consumer advertising plan will help you sell it. Get after this enormous market, there's money in it for you. **MAIL THIS COUPON TODAY!**

THE LUBURETOR COMPANY,
Columbus, Ohio.

Gentlemen:—

Please send by return mail full description, prices and discounts on the Luburetor. Also outline your consumer merchandising plan.

(Please mark whether distributor or dealer)

Signed.....

Street.....

City..... State.....

M.A.-10

Sell Repairs at Flat Rates!

WHEN one of your customers drives into your shop and asks the price of a repair, don't lose the job by admitting that you can't make an accurate

estimate. Quote a price and stick to it! You can do it, and know that your price is right by using the rates suggested in

... MOTOR AGE'S ... FLAT RATE MANUAL

277 operations and 42 cars are covered in these comprehensive schedules. A price is provided for practically every job that the average shop ever has

occasion to perform. With this Manual on file a correct quotation can be made on practically any job that rolls into the shop.

This Manual Is Practical

An experienced maintenance man who has spent years in the shops worked for six months testing and verifying the rates quoted in this Manual. His researches **prove** that the plan of Flat Rate Operation suggested in this booklet is practical in every respect. It works out under average shop conditions.

FLAT RATES THAT WORK!

Read what a practical repair man says about it:

Pittsburgh, Pa., July 2nd, 1925.

MOTOR AGE,
5 So. Wabash Ave.,
Chicago, Illinois.

Gentlemen:—Would you kindly send us by Parcel Post, C.O.D., three copies of "Motor Age's Flat Rate Manual" as printed in your magazine of April 30th, 1925.

We have been using this guide continuously since its issue, and have had remarkable success with it.

Yours for "Flat Rate,"
Automotive Repair Company
(Signed C. T. FURNISS)

If you are interested in improving the service which you render your customers and in making more money for yourself, you should not pass up this opportunity to obtain the best and most complete information available on the subject of Flat Rate. This price of the booklet is so little—only 50 cents—that no shop can afford to be without it.

Tear off on this line

**The coupon is
here for your
convenience!**

MOTOR AGE,
5 So. Wabash Ave.,
Chicago, Illinois.

Date.....

Gentlemen:—Enclosed please find \$.....for which mail me.....
copies of your Flat Rate Manual.

Name.....

Address.....

City.....State.....

Firm Name.....

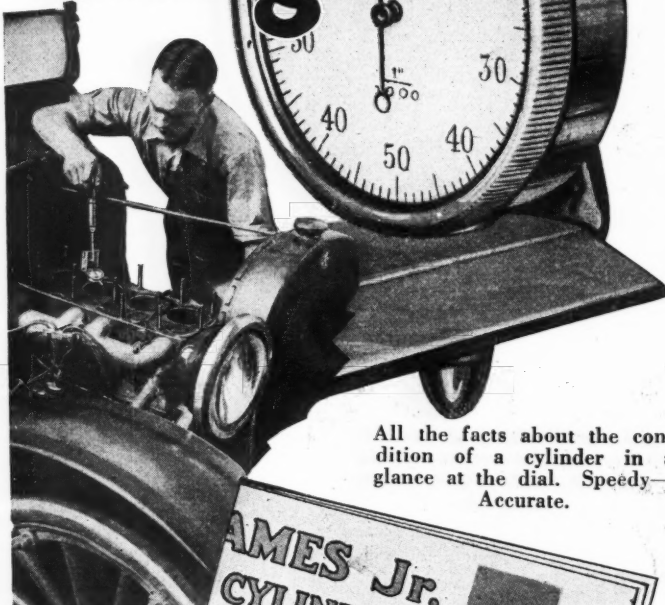
**This offer holds good
anywhere and at any time**



WILLARD Threaded Rubber Insulation must stand up and continue to give satisfactory, uninterrupted service for the entire life of the battery, or we will reinsulate that battery free of charge. That means any one of us—anywhere—at any time. Was ever a battery sold with stronger backing than that?

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Battery men**

AMES Cylinder Gauge



All the facts about the condition of a cylinder in a glance at the dial. Speedy—Accurate.

Send for complete information about this handy tool.



A short cut to more profits.

Please send me two folders fully describing the CYLINDER GAUGE and the CRANKSHAFT GAUGE.

Name

Address

MA-10-1

What my friend Pete

has learned about his fan belt business



I GOT my friend Pete to check up the number of Graton & Knight fan belts he sold last year. The figures proved that Graton & Knight belts, with no sales effort, were showing a neat, pretty profit.

Right then Pete tumbled to the fact that he should push this paying, fast-selling line. Now he has them out where customers can see them. Tells me he'll sell twice as many this year.

Of course Pete uses our *quick turnover system*. Endless belts for the popular cars. Roll belting, which can be cut to fit the others. This keeps investment low, turns stock quickly and increases profit.

Pete finds Graton & Knight Flat, "V" or Link "V" Belts give his customers better service. Their special leather resists oil, dust, water and motor heat. They grip tight at low tension. Are easy on bearings. Require minimum adjustment.

Our sales proposition, with the handy display rack and quick turnover system, puts new pep in your fan belt business. Write today for full details of this interesting, profit-making plan.

THE GRATON & KNIGHT MFG. CO.

Tanners—makers of belts and other leather products
Worcester, Massachusetts

GRATON & KNIGHT

Standardized
LEATHER BELTING

he sold 37 out of thirty-nine

This dealer sold all but two of the first thirty-nine closed car owners to whom he demonstrated the Spon VENTILATOR.

Quick sales to eight of every ten car owners. No closed car is complete without one. Otherwise, driver and passengers alike suffer from stuffy atmosphere, frosty and steamed windows.

Or from the discomfort of snow, sleet, rain, dust if open.

Within 3 minutes from the purchase of the Spon VENTILATOR, closed car motoring in comfort and safety results.

That's all the time it takes to install without special tools.

Spon AUTO VENTILATOR

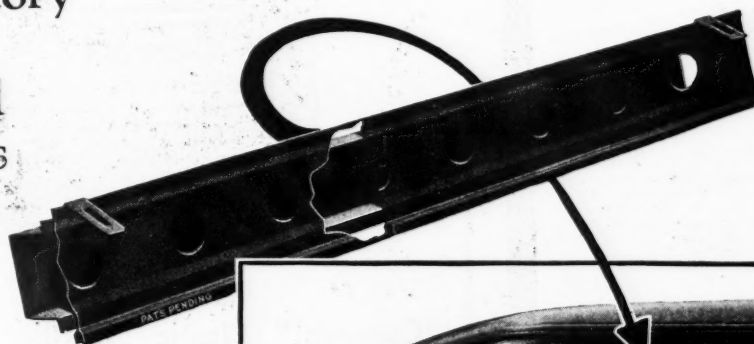
The one successful ventilator

This is the biggest PROFIT opportunity to dealers and distributors alike, to be offered this season. Climb aboard now. The band-wagon is filling. Get the fat profits which come from selling the Spon VENTILATOR—it's a daily cash-register ringer. Good territory for live-wire distributors closing fast. With your application send references please.

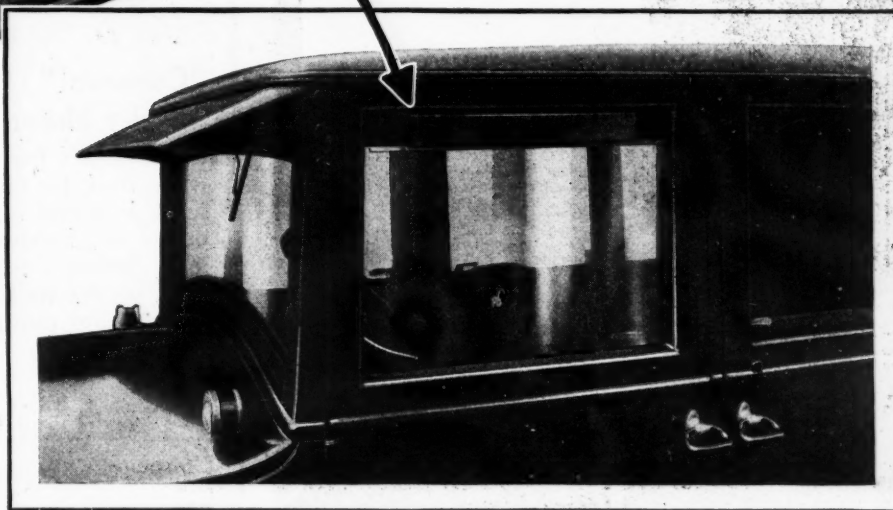
Good territory
for live
dealers and
distributors

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\$1.50 Retail
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ALL Cars



TESTS BATTERIES IN PLACE WITHOUT REMOVAL FROM CAR A NEW PIECE OF SERVICE EQUIPMENT



\$24.00

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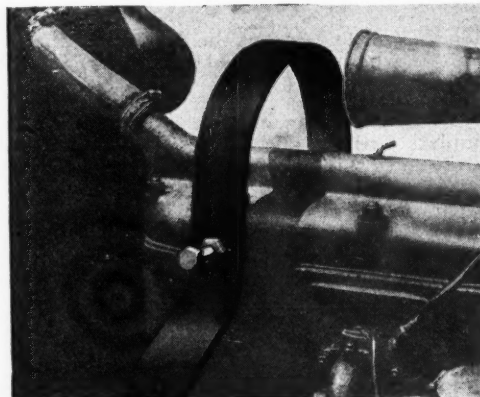


PIN THIS TO YOUR LETTER-
HEAD AND FULL DETAILS
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CAPACITESTER.

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Making Money for Hundreds of Shops All Over America! Attached in 30 Minutes on Ford, Dodge, Chevrolet or Overland—STOPS ALL FRONT END VIBRATION PERMANENTLY. Gives more comfortable riding, reduces wear and tear, cuts repair bills, increases mileage. Does not interfere with 3 point suspension. The CLARK MOTOR STABILIZER gives a 4 cylinder motor the "equipoise" of a six!



YOUR JOBBER or accessory dealer has CLARK MOTOR STABILIZERS in stock or can get them for you immediately. For attractive descriptive literature and name of nearest jobber, write us.

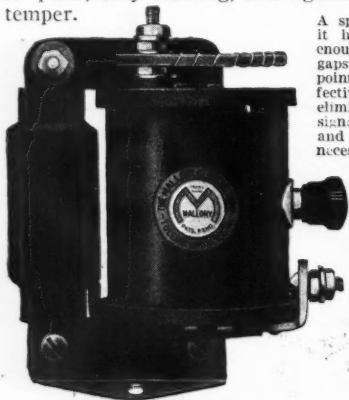
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You're Off With a Bang With

The Mallory IGNITION COIL

even when Father Winter droops his zero whiskers over your car. Install a Mallory Ignition Coil and throw away your crank and bottle of ether. Just tickle the starter button and your car will be rarin' to go. Insure yourself today of quick, easy starting, and against towing bills and loss of temper.



A spark may jump a wide gap but if it has no body it will not produce enough heat between the spark plug gaps to raise the temperature to a point where combustion is wholly effective. The installation of a Mallory eliminates many troubles generally ascribed to causes other than ignition, and makes ordinary repair bills unnecessary.

The Mallory Coil has an extra primary winding. This, together with the practically closed magnetic circuit core, permits us to guarantee the coil not to burn out.

The Mallory delivers a spark (in reality more of a flame) similar to that of a high tension magneto, causing complete combustion. The spark it delivers from a weak battery will start any engine as it is as hot for starting as when the engine is running.

TO EVERYONE IN THE AUTOMOTIVE BUSINESS

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MALLORY ELECTRIC CORPORATION
Factories Building
Toledo, Ohio



USE

"Conneaut" Plastic Metallic Packing on Leaky Motor Engine Water Pump Shafts

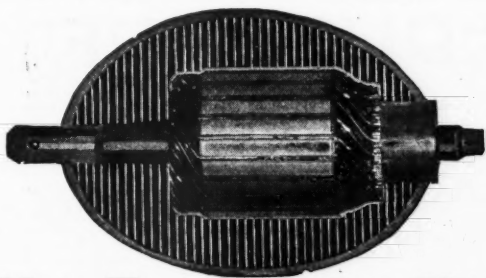
It is in putty form. It becomes a perfect fit to the worn shaft by tightening the gland, making an adjustable metal bushing which may be tightened to take care of natural wear, the same as a fiber packing. Never wears out and does not cause further wear on the shaft. It is a permanent repair for the leaky water pump.

Put up in one and five pound cans. Ask your jobber.

The Conneaut Packing Co.

Conneaut,

Ohio



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With the next burned out armature do this: Pack and ship to Fredericks at Lock Haven. A rewind exactly the same, guaranteed for 90 days, will be shipped back to you immediately. Benefit by Fredericks' new low rates. Follow this simple prescription always and a steady, profitable business will be yours. A booklet that is free gives all the data.

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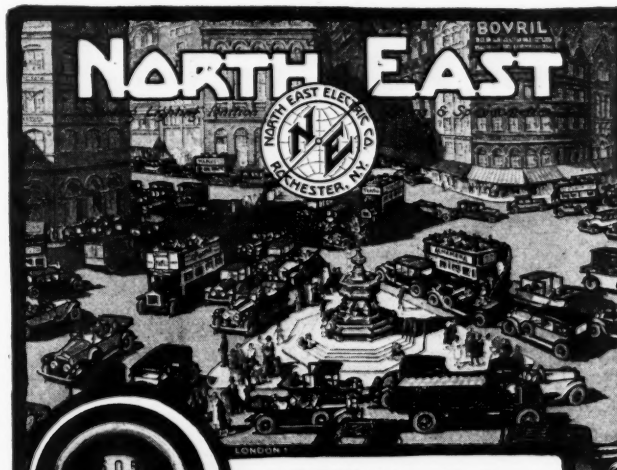
It is as interesting as a fiction serial, and instructive to the point of making better and more prosperous dealers.

Reading MOTOR AGE every week when it comes, assures subscribers that they will stay up to date and profit accordingly.

MOTOR AGE

5 So. Wabash Ave.

Chicago, Ill.



THE North East Speedometer is of the magnetic type. It is compensated for temperature changes and registers the speed with equal accuracy under all conditions. The season odometer registers up to 100,000 miles and the trip odometer up to 100.0 miles.

North East Model E Speedometers are provided for bottom-drive. They are in use on Dodge Brothers Motor Cars, Graham Brothers Trucks and Buses, and Yellow Coaches.

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"Made to Blue Print"

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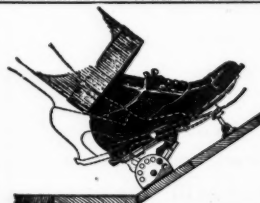
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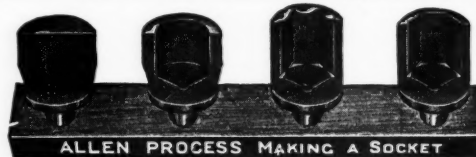
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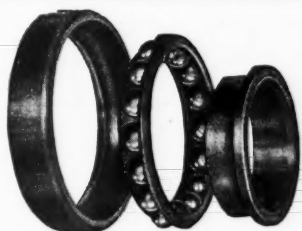
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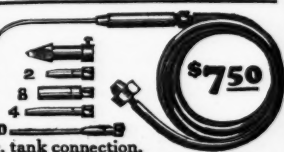
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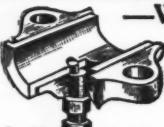
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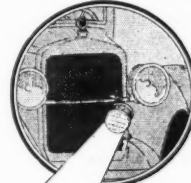
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Cable

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THE GOODRICH-LENHART MFG. CO., Hamburg, Pa.

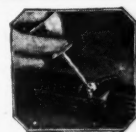
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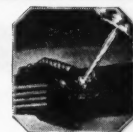


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FOR SALE—New 4-speed Himco Transmissions at \$100 each. Write Watson Motor Co., Watson, Mo.

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Attorney-at-Law and Solicitor of Patents
C. L. PARKER

Formerly Member Examining Corps, United States Patent Office

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 Prompt service. Highest references. Established 1884.
 Milo B. Stevens & Co. Registered Patent Attorneys.
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HELP WANTED

WANTED—Field Representative. One of the best known and most successful automobile factories in the fine car field, Detroit, requires the services of a man of exceptional ability and personality in Sales Education and Promotion work. Prefer man over thirty with broad experience in sales work with distributor and factory in the territory. Needs to be fluent speaker with ability to hold attention of dealers in zone group meetings. Clean cut, forceful man of good education will find excellent opportunity in this work. Must travel. Need not live in Detroit. Full details first letter. Reply to: Sales Educational Manager, 83 Virginia Park, Detroit, Michigan.

FOREIGN REPRESENTATION

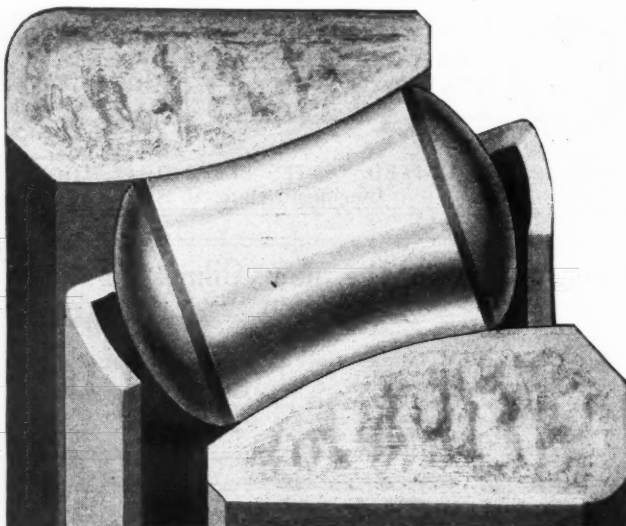
EUROPEAN REPRESENTATION — AMERICAN WITH OFFICES IN PRINCIPAL EUROPEAN COUNTRIES NOW HANDLING AUTOMOBILE ACCESSORIES WOULD LIKE TO GET IN TOUCH WITH MANUFACTURERS WISHING REPRESENTATION FOR THEIR PRODUCTS. EITHER ACCESSORIES IN THE USE OF THE AUTOMOBILE OR MACHINERY USED IN ITS MANUFACTURE. APPLY BOX 6246, CARE MOTOR AGE, 5 S. WABASH AVE., CHICAGO, ILL.

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EXPERIENCED SALESMAN with 12 years' executive experience as President of a Michigan Corporation, well known to Automotive and Hardware Trade, wishes to represent Manufacturer in Michigan and vicinity. Can furnish best of reference. Address Box 6245, Care Motor Age, 5 S. Wabash Ave., Chicago, Ill.

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SHAFTER

Self-Aligning ROLLER BEARING

PAT. & PATS. PENDING



L. E. BOWMAN
823-27 E. WASHINGTON BLVD.
FT. WAYNE, INDIANA



April 24, 1925.

The Shafer Bearing Corp
6501 W Grand Ave
Chicago - Ill

Gentlemen -

Shafer bearings are 100% on efficiency in this district, and we believe that the self-aligning principle of your bearing is why your bearings give such wonderful service.

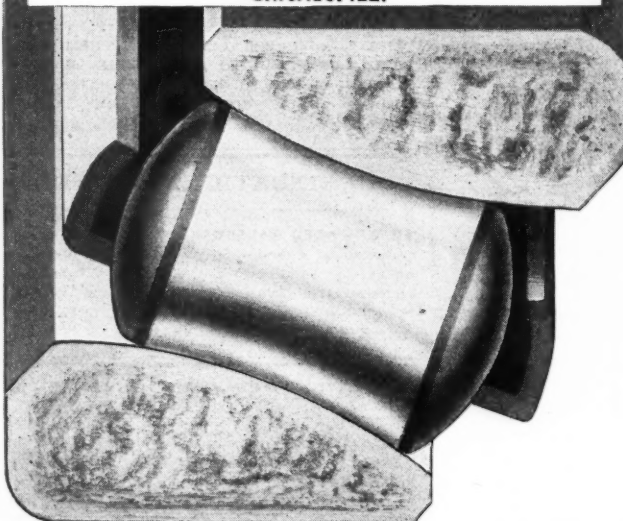
We would like to see more of your bearings used, and recommend them for replacement to our customers when they need a taper roller bearing.

Very truly yours,

JOB:mg

SERVICE MANAGER

SHAFFER BEARING CORPORATION
6501 WEST GRAND AVENUE
CHICAGO, ILL.



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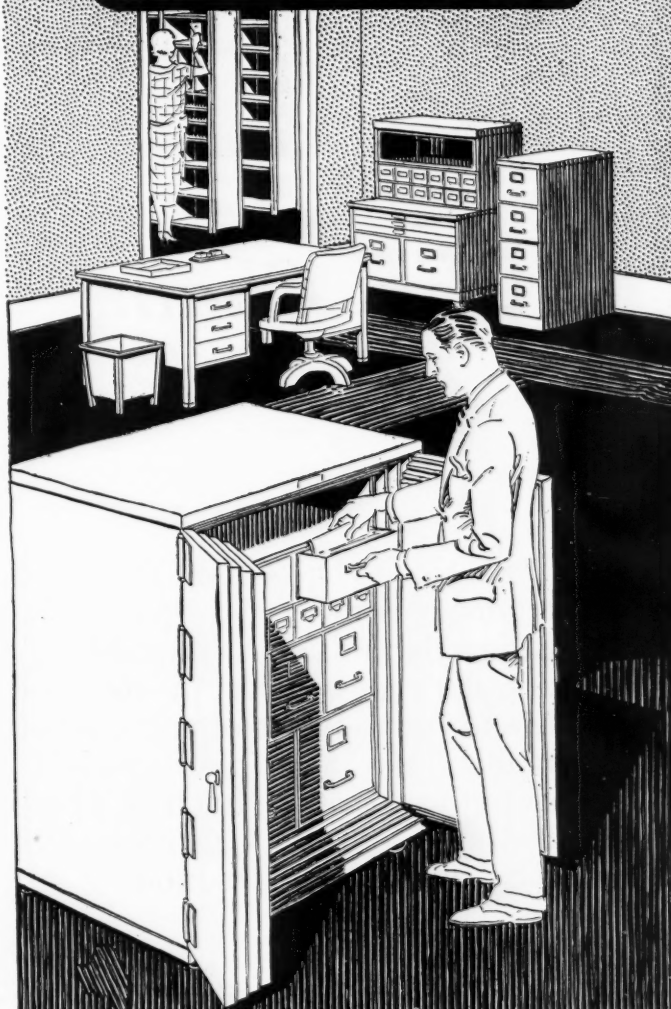
GF Allsteel Safes, tested and approved by the Underwriters' Laboratories, have brought their contents, uninjured, through countless severe fires.

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Write for a copy of the GF book: "Safeguarding the Vital Records of Business."

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Youngstown, Ohio

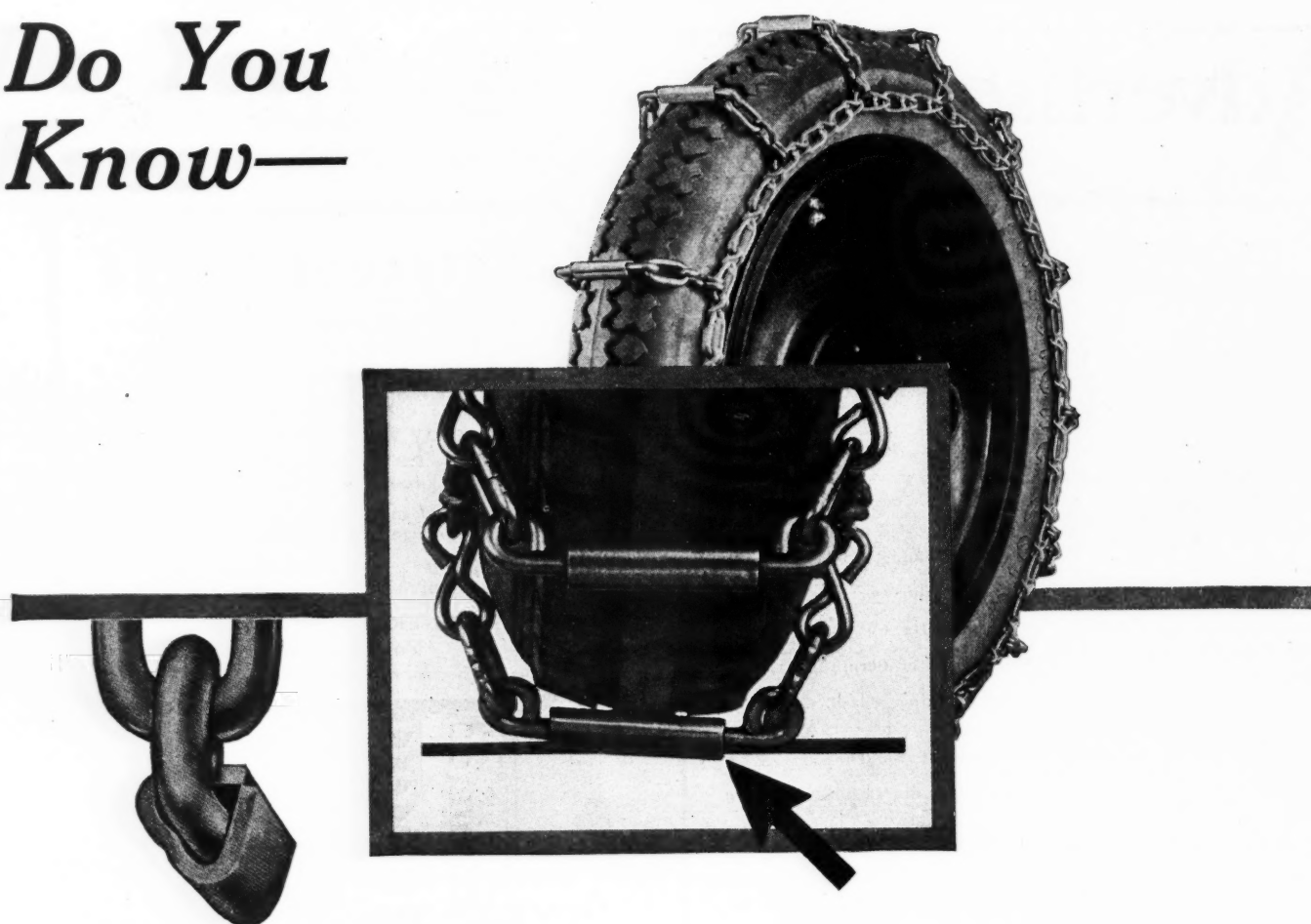
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City.....

*Do You
Know—*



HOFF Chains
Positively
Prevent Skidding

HERE'S THE REASON—Any tendency of the car to slip sideways brings the ends of the rotatable triangular tubes against the more or less uneven surface of any kind of road or pavement and positively stops the side slip. Even on a perfectly smooth, icy or greasy surface, any sidewise motion of the

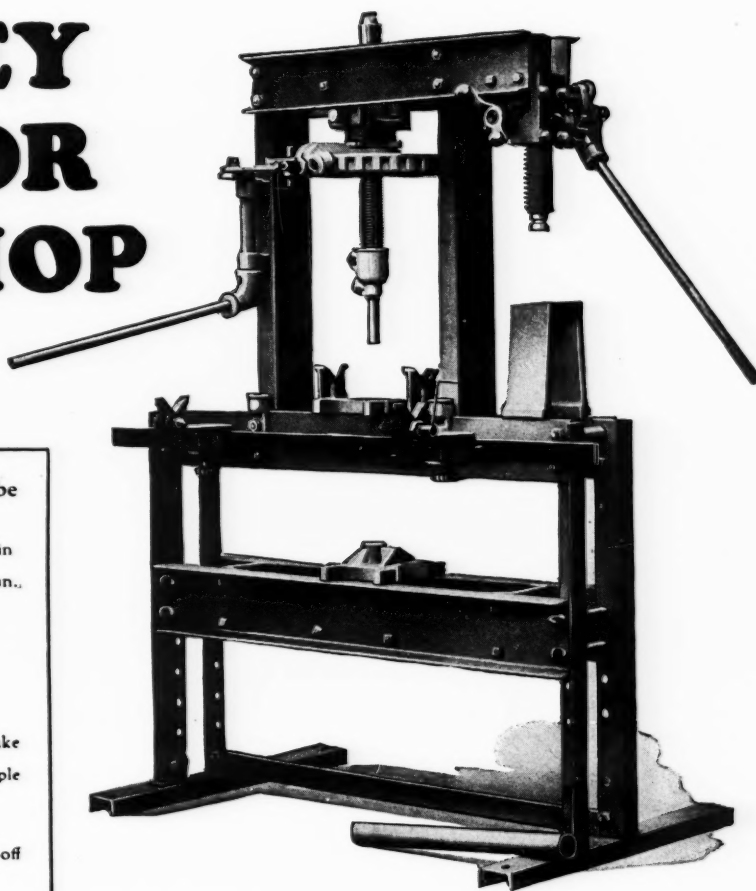
car causes the tires to roll in the opposite direction. This tilts the Hoff Cross Members and causes the sharp ends of the triangular shaped rotatable tubes to dig into the surface.

Hoff Cross Members may be purchased separately to repair any make of Chain.

HOFF METAL PRODUCTS CO., 70 East 45th Street, New York. Plant — York, Pa.
In Canada — The B. GREENING WIRE CO., Ltd., Hamilton, Ont.

**HOFF Chains actually do
what Tire Chains should do**

A MANLEY PRESS FOR EVERY SHOP

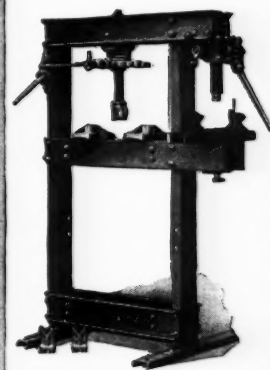


21 Operations on the Ford car that can be performed with a Manley Press

1. Pressing steering spindle body bushings out and in.
2. Pressing steering arm bushings out and in.
3. Pressing lower steering column bushings out and in.
4. Straightening steering drag link.
5. Straightening front axle.
6. Pressing wheel hubs out and in wheel.
7. Pressing timing gear off and on camshaft.
8. Pressing timing gear off and on crankshaft.
9. Pressing gear off and on generator.
10. Straightening camshaft.
11. Straightening crankshaft.
12. Pressing piston pin bushings out and in piston.
13. Pressing bushings out and in transmission brake drums.
14. Pressing bushings out and in transmission triple gears.
15. Pressing differential axle gears off and on axles.
16. Straightening rear axle shafts.
17. Straightening rear axle shaft housing.
18. Pressing drive shaft pinion roller bearing sleeve off and on.
19. Straightening drive shaft.
20. Straightening drive shaft housing.
21. Pressing spring hanger bushings out and in.

12 REASONS WHY THE MANLEY PRESS IS PREFERRED:

1. Excess capacity: Manley ratings are very conservative and all Manley equipment has a much greater capacity than the Manley ratings indicate.
2. Exposed screw: The Manley Press is arranged so that the end of the screw is exposed and the Press is designed so that you may jar stubborn parts loose by a hammer blow on this exposed screw end, giving the effect of as much as a hundred ton straight pressure.
3. Open construction makes it possible to handle work of any length.
4. Extra wide clearance on lower table (42 inches).
5. Double table saves time adjusting table for work of different heights, long nose and short nose supplied with Press, this also saves time adjusting for height.
6. High speed Rack and Pinion Press Attachment. Two men can work on this Press at the same time.
7. Hand wheel mounted on ball bearings.
8. Hand levers in most convenient position, enabling operator to keep eyes on work.
9. Quick change of leverages and speeds.
10. Correctly lubricated.
11. Designed by R. E. Manley and guaranteed by The Manley Mfg. Co.
12. Price \$100.00 without Rack and Pinion Press or Crankshaft Straightening Attachment. With Rack and Pinion Press and Crankshaft Straightening Attachment \$145.00.



For the smaller shops the 20 Ton Manley Press is recommended; complete with Rack and Pinion Press and Crankshaft Straightening Attachment \$104.00.

Get a Manley

THE MANLEY MFG. CO., YORK, PA.

Buy from your
own jobber.

IMPORTANT

For an automobile development of outstanding importance read pages 50, 51, 52 and 53 of this issue. It is news of interest to all dealers.